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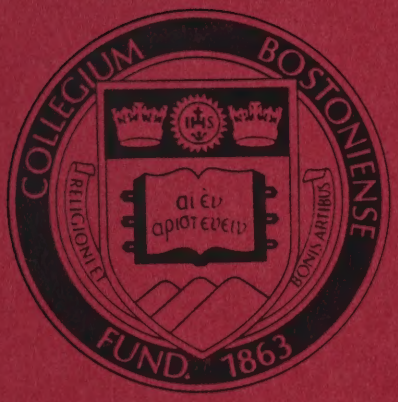
BOSTON COLLEGE

MASTER PLAN



for

PHYSICAL FACILITIES DEVELOPMENT

1991-2001

BOSTON COLLEGE
CHESTNUT HILL, MASSACHUSETTS 02167-3842

OFFICE OF COMMUNITY AFFAIRS
(617) 552-4787

January 27, 1992

Allston/Brighton-Boston College Community
Relations Committee

Dear Co-Chairs Costello and Carmilia:

RE: MEMORANDUM OF UNDERSTANDING
BOSTON COLLEGE MASTER PLAN

Over the past several years representatives of Boston College and members of the Allston/Brighton-Boston College Community Relations Committee (the "Committee") have been discussing the Boston College Master Plan. It is the purpose of this letter to set forth the final understanding of Boston College and the Committee regarding the Master Plan.

1. Student Dormitories

Boston College intends to construct two (2) new undergraduate dormitories on sites A and B as defined on Map 15 attached to the Master Plan. The combined dormitory buildings shall contain a maximum of 614 net new student beds. The project will result in the removal of approximately 120 existing modular beds through the demolition of eight (8) existing modular buildings. Each new dormitory building shall be approximately 115,000 square feet in size and shall not exceed six (6) stories in height. Each building and the associated dining facility shall be constructed of materials chosen to enhance the urban design image of the Boston College campus.

Boston College expects to commence construction of the dormitories and dining facility in the Spring of 1992 with a view towards completion of construction and occupancy in the Fall of 1993.

As previously discussed with the Committee, after construction of the dormitories a view corridor of 224 feet shall remain between the westerly facade of Walsh Hall and the easterly facade of the new dormitory closest to Walsh Hall. The distance from the front of St. Ignatius to Dorm A measures 311 feet. In addition, Boston College shall maintain the "Ring Road" through the Lower Campus in substantially the same alignment as currently exists.

Boston College has previously discussed with the community the possibility of a third dormitory on site C. Boston College is not currently seeking Master Plan approval of such dormitory. If Boston College seeks to construct the third dormitory, Boston College shall notify the Boston Redevelopment Authority pursuant to Article 51 of the Zoning Code and shall proceed through the zoning processes contemplated by the Master Plan provisions of Article 51.

2. Dining Commons Facility

Boston College intends to begin construction in the Spring of 1992, along with the new dormitories, a new dining commons facility adjoining the Robsham Theater building on site D. The dining facility to be completed in the Fall of 1993, shall contain approximately 42,000 square feet and shall not exceed two (2) stories in height (exclusive of mechanical penthouses).

3. Student Center

The construction of a new student center remains a priority to both Boston College and the Committee. Boston College shall continue to plan for the construction of a new student center on the Lower Campus in the approximate location of sites A2/B1. The anticipated construction start date for the student center remains the Fall of 1993 or the Spring of 1994 with a consequent completion anticipated after September 1995.

The student center shall be designed and programmed to encourage maximum usage by students through the availability of a wide range of recreational, social, cultural, and personal services and activities. Boston College shall work with and consider all suggestions received from the Committee, on an ongoing basis, in determining the appropriate mix of such activities and services.

To the extent Boston College seeks the services of outside vendors, Boston College shall work with the Allston/Brighton community to maximize potential for Allston/Brighton merchants and individuals to provide services and goods in the new student center. Toward this end, Boston College shall notify the Allston Board of Trade and the Brighton Board of Trade of potential business opportunities in the student center and shall work with individual local merchants and groups to facilitate responses to inquiries concerning such opportunities.

4. Parking Garage

Boston College shall construct a new parking garage on the Lower Campus in the approximate location of sites A2/B1. The anticipated construction start date for the parking garage shall be September 1993, with completion anticipated in September 1995.

The garage facility shall be designed to provide a minimum of approximately 400 cars and a maximum of approximately 800 parking spaces and would be connected to Thomas More Drive by two (2) means of access/egress. Boston College shall endeavor to construct as many spaces as possible as determined by the Transportation Master Plan and site limitations.

5. Other Development Projects

The Boston College Master Plan defines as longer-term projects: (1) the elimination of the remaining "modular" housing units; (2) the creation of open space/playing fields in the center of the Lower Campus; and (3) the replacement of the modular housing units elsewhere on the Lower Campus.

Prior to the demolition of the remaining modular units, Boston College shall present its proposed plan for the open space/playing fields to the Allston/Brighton community for review with respect to: (1) the view corridor which will be created from the Commonwealth Avenue/Lake Street intersection; and (2) the development and articulation of the open space/playing fields as an enhancement to the community.

Boston College shall explore the feasibility of constructing the replacement housing for the modular units on site near the Beacon Street boundary of the Lower Campus. In the event that the development of the replacement housing occurs, Boston College shall be required to formally amend said Master Plan to reflect the location, size, height and massing of the building or buildings.

6. Use of Alumni Stadium

Boston College shall endeavor to hold all Alumni Stadium football games during daylight hours. Should television coverage require a night football game, Boston College will so notify the Allston/Brighton community and the BRA, and the three parties shall endeavor to meet prior to any meeting or hearing of the Boston Licensing Board to jointly plan to address all potential impacts of the night game.

Boston College shall only permit the use of the stadium for events which are similar to those which have been held in the stadium prior to the date of the Master Plan. Boston College shall not permit the use of the stadium for other profit and non-profit events with the exception of such events as Special Olympics, high school athletic events and other charitable functions.

7. Community Benefits

Over the term of the Master Plan, Boston College shall work cooperatively with the community to increase the number of qualified Allston/Brighton residents who are employees of Boston College. To this end, Boston College shall provide to the Allston/Brighton community and the BRA annual status reports on applications for employment by and hiring of Allston/Brighton residents.

Other community benefits are listed in Exhibit I hereto enclosed.

8. St. John's Seminary

Boston College shall refrain from using space at St. John's Seminary for either student housing, classrooms or intercollegiate varsity level recreational/athletic purposes. Boston College shall not expand its use of St. John's Seminary beyond St. Clement's Hall without formally amending its Master Plan and proceeding through the appropriate review and approval processes with the BRA. When new intramural playing fields become available on the main campus, Boston College will endeavor to limit the intramural or club athletic use on the Seminary property.

Boston College shall discourage university-owned vehicles and contractor vehicles travelling from the Boston College campus to St. John's Seminary from using Lake Street as a route of travel and encourage the use of Commonwealth Avenue and appropriate streets to St. John's and other destinations. As a matter of University policy, Boston College shall cooperate with the City of Boston regarding its policies on the use of Lake Street.

9. Transportation Master Plan

Boston College shall prepare a Transportation Master Plan for its entire campus in conjunction with the Transportation Access Plan for the Dormitory/Dining Facilities Project. The scope and time frame of the Master Plan study will be determined through negotiations with the BRA, the Boston Transportation Department, and representatives from the Committee, said negotiations to commence immediately upon approval of the Institutional Master Plan.

10. 1380 Soldiers Field Road

Boston College will continue to attempt to sell the property at 1380 Soldiers Field Road. If there is no sale, the University will come back to the Committee to discuss the future of the building. Boston College shall inform the Committee about the status of the building in the yearly update process.

11. The Committee

Over the term of the Master Plan, Boston College, along with the Mayor's Office of Neighborhood Services and the Boston Redevelopment Authority, will continue to recognize the Committee as the appropriate community review body for future amendments prior to discussion with other concerned community groups and individuals. We also expect that the Committee will remain representative of the various interested and concerned community groups and committed to the principle of an open and democratic process.

12. Community Support of the Master Plan

The Committee shall vote to approve the Boston College Master Plan and shall support approved master plan projects at meetings of the BRA, the Boston Zoning Commission, and the Zoning Board of Appeal.

APPROVED BY:

Stephen Costello, Chairman

John T. Driscoll,
Administrative Vice President

John Carmilia, Co-Chairman

Jean S. McKeigue, Director,
Office of Community Affairs

APPROVED BY:

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CHAPTER ONE
INTRODUCTION

Purpose & Summary

Purpose

Boston College, its neighbors and the City of Boston are currently engaged in a Master Planning process. The Master Plan for physical facilities is a document required by Article 51 of the Boston Zoning Code and serves as a vehicle to communicate institutional plans.

The City of Newton is developing a new zoning policy. Boston College wishes to relay to its neighbors, the Aldermen and the Newton Planning Department what it envisions for the future growth of the physical facilities of the University in the City of Newton.

Boston College recognizes the planning process as an opportunity to work with its neighboring cities and communities to enhance relationships and to help contribute to the overall quality of life in Allston/Brighton and in Newton. The development of this plan will enable the University and its neighbors to view the future on a common ground.

Summary of Ten-Year Objectives and Major Projects

Various institutional and academic planning efforts and the reports of accrediting bodies, in combination with the ongoing management of the University, have identified a number of pressing needs for space. These fall into six major categories.

- Student Dormitories
- Classrooms and Laboratories
- Recreational Space and Athletic Playing Fields
- Parking
- Faculty and Administrative Offices
- Storage

In response the University has prepared a ten year capital plan. This Master Plan discusses the scope, siting and timing of each of the projects in the ten year capital plan. It presents, as well,

brief historical summaries and pertinent background information. This Master Plan was developed with input from the Boston College Community Relations Task Force and the Boston Redevelopment Authority. The list of the individuals on the Task Force is in Appendix A of this document. The Plan also includes the recommendations and studies of architects, campus planners, traffic consultants and legal counsel employed by the University to provide expert advice on the many complex technical and procedural issues surrounding the development of physical facilities in the cities of Boston and Newton.

A very brief summary of pragmatic near-term objectives and responsive projects is noted below.

Objective	Project
1. Provide more on-campus housing and improved dining facilities for undergraduates	New residence halls
2. Provide on-campus housing for graduate students	A new graduate residence center
3. Provide parking plans and facility to move automobiles out of neighborhoods	A new parking facility
4. Improve academic and administrative facilities on campus	Renovation and additions to existing buildings
5. Provide more student services on campus and improved dining facilities	A new campus center
6. Improve grounds and open spaces	Various landscaping projects Removal of inefficient facilities
7. Improve and increase office space for faculty and administration	Renovation of existing space
8. Provide handicapped accessibility for all students.	Renovation of buildings as needed

URBAN DESIGN

Design guidelines for the next ten years include combining an efficient use of limited space with an increase of green space, a definition of campus entrances and a building structure that will focus the eye toward the gothic towers of the Middle Campus.

Design features include:

- Siting, sizing and quality will be sensitive relative to the existing edge buildings and the center of the Middle Campus with its gothic architecture;
- Materials will be reflective of the quality, shade and texture of materials used throughout the campus;
- Campus edges, particularly entrances, will be improved in order to improve the end of the Commonwealth Avenue Boulevard Planning District;
- Internal green space will provide open space amenities and view for the community and the campus.

Circulation and Parking

Traffic patterns at Boston College at the intersections of Lake Street & Commonwealth Avenue, St. Thomas More Drive & Beacon Street, Chestnut Hill Drive & Commonwealth Avenue, Hammond Street & Beacon Street and Center Street have been studied and projected into 1995. The traffic patterns are projected to remain relatively stable with "build out" projections (see Chapter 3 and Appendix C).

Boston College will develop a Master Plan for traffic and parking. The Master Plan will include the survey for existing parking spaces with goals of increasing the number of spaces.

Zoning

On the issue of institutional boundaries, Bostons College will agree to cooperate with its neighbors and the City of Boston in regards to Article 51 of the Zoning Code.

CHAPTER TWO
BACKGROUND

History

Towards the middle of the 19th century, an avalanche of Irish immigrants, fleeing a famine in their native land, descended upon Boston. It is eloquent testimony to the ambition and self-confidence of these destitute newcomers that within fifteen years they had a college for their sons named for their adopted city, Boston College, directed and taught by an eminent educational order of Catholic priests, the Fathers of the Society of Jesus, known familiarly as the Jesuits. For fifty years Boston College, together with its massive collegiate Church of the Immaculate Conception, was located on Harrison Avenue in the South End, opposite the Boston City Hospital. The Jesuits taught the sons of immigrants the same Greek and Latin classics and philosophy that was the established curriculum at Princeton, Columbia, Brown and other select colleges of that era. The vast majority of Boston College graduates entered the professions - law, medicine, education, and a large number became priests. Thus, when the College was only several decades old its alumni began to enrich the life of the city. In the 19th century, the enrollment of the College was not large by modern standards, but in the 1890s Boston College's enrollment of less than 200 made it a larger college than the Universities of Massachusetts, New Hampshire, Michigan State, Purdue or Maryland.

But expansion had to come, and the space and facilities in the South End were cramped, so in 1913 Boston College moved to a then spacious Chestnut Hill campus. Street car transportation made the Chestnut Hill site feasible, but the College did not change its name and its new campus actually bordered the City of Boston. Indeed, the College retained strong links with the city by locating its Law School, Evening College, Graduate School of Social Work, and School of Nursing in downtown Boston where they remained for many years.

In 1970, responding to societal pressures as did many other previously all-male colleges like Williams, Amherst, Holy Cross, and Yale, Boston College became coeducational in all undergraduate programs. This at once doubled the potential field of applicants to Boston College and greatly increased the pressure for expansion. But the University by no means doubled its undergraduate enrollment. In 1970 there were just over 6000 undergraduates. More than two decades later there are 8500. Nevertheless the increased numbers and especially the steady growth of students from other regions of this country and from other countries have created a growing need for campus housing that even two decades of construction has not been able to meet. The number of resident students who cannot be housed on campus remains too large, so further residential construction is a prime objective of University planning.

Boston College now has a population as large as that of a fair-sized town and responsibility for the cultural, social and recreational--as well as academic--accommodation of resident students twenty-four hours a day. There is a critical need for a commodious student center. When McElroy Commons was built nearly thirty years ago it was thought of as a student center; but the pressing need for dining facilities and a bookstore all but squeezed out space for student meetings and social activities. Provision must be made for student events and activities that will lessen the need for students to seek relaxation and entertainment off campus. A true campus center should be built as soon as it is feasible to do so.

In the waning decades of the twentieth century, where people are, there are automobiles, with resultant parking problems. In this respect Boston College is surely part of the American landscape. In the past decade, in addition to its various surface parking lots, the University constructed a garage in two phases to accommodate 827 cars. A planning priority is another parking garage.

Boston College is now a medium-sized University with 8,500 undergraduate students in the College of Arts and Sciences and three professional schools; 4,000 students in the Law School, the Graduate Schools of Arts and Sciences, Social Work and Management; and 1,500 in the Part - Time and Evening College. The University is now a national institution with many international

students and programs. But despite its growth and diversification Boston College retains deep commitments to Boston, its original host, because it was citizens of Boston who made the University and its lofty traditions a reality.

Goals of Boston College

Boston College was founded to provide each student with a broad liberal education and a system of values to help organize this knowledge. Students at this Jesuit university learn the importance of intellectual achievement and scholarly research, along with the importance of moral, spiritual and social values.

Boston College has set goals for the 1990s. The Goals for the Nineties Council has determined a three-fold mission for Boston College. First, the University will continue its commitment to increase academic excellence. Secondly, Boston College will redefine and reaffirm its commitment to its Catholic and Jesuit identity. The third goal is to enrich the intellectual and personal environment of students on the Boston College campus. (See Appendix B for Goals Statement.)

In order to attain these goals, the University plans additions and changes to its physical facilities to accomplish the following:

- Provide On-Campus Housing for at least 75% of Undergraduate Students
  On-campus housing is considered an extremely important factor both in attracting quality students and improving the interactive quality and "tone" of the campus experience. Providing such housing has the added effect of relieving some of the housing pressure in the surrounding neighborhoods. More importantly, since Boston College does not plan to increase the size of its student body, the addition of new dormitories will bring students onto the campus.

- Provide On-Campus Housing for Graduate Students
  At the present time, Boston College provides no housing for its graduate students. Boston College has become competitive on a national level with its graduate programs. Lack of housing can be a detriment to attracting high quality students. Here, too, the provision of on-campus housing will relieve some of the housing pressure in the neighborhoods closest to Boston College

- Provide Additional On-Campus Parking
  Commuter students and employees must for the most part drive to Boston College and therefore have guaranteed on-campus parking. In addition, more resident students would like on-campus parking. Additional spaces would serve daytime parking needs, campus residents and those who attend large on-campus events.

- Provide "State-of-the-Art" Classroom, Research and Office Facilities for Students, Faculty and Staff
  Boston College is constantly striving to raise its academic standards. Up-to-date academic facilities will enhance the learning environment for the University community and ensure compliance with the standards set by various accrediting bodies.

- Improve Student Services
  A major part of improving the quality of life on campus is providing services which better and more completely meet the needs of Boston College students. This will involve reorganizing and relocating existing services as well as providing much needed on-campus space for student services and activities.

- Improve On-Campus Vehicle and Pedestrian Circulation
  The vehicular and pedestrian movement on the campus is not clearly organized and this lack of clarity creates visual and operational confusion. This condition is further exacerbated by the severe grade difference between the Middle and Lower Campus and the distance separating the Newton Campus from the Chestnut Hill Campus. Elements of this plan are designed to address these issues.

- Enhance and Add Open Space
  Open space for any campus is important for its aesthetic, recreational, and social implications. Rather than allowing open space to be "left over" from the planning of new buildings, the University plans to enhance the open space it has, and increase the amount of open space for future use.

- Upgrade Facilities
  The renovation and modernization of existing facilities and beautification of the Boston College landscape will continue.

In meetings with the community, there was agreement that some of these objectives were mutually shared. This Master Plan will address the implementation of construction projects designed to meet some of these objectives. The plan deals most specifically with projects falling within a ten year horizon (1991-2001), running concurrently with the Capital Plan.

CHAPTER THREE
EXISTING CONDITIONS

Area of Study - Lower Campus

The area of the Master Plan study in the Brighton neighborhood of the City of Boston is the area called the Lower Campus (Map #2). (All maps are located in Chapter 10 of this document). Its boundaries include the Boston/Newton Line on the north, St. Thomas More Drive on the east, Beacon Street to the south and the Middle Campus to the west. Also included is More Hall, located on the east side of St. Thomas More Drive. Boston College also owns Greycliff Hall at 2051 Commonwealth Avenue.

The northern edge of the study area is a student residential area. This edge also contains the main access to the Lower Campus area from Commonwealth Avenue. This access is a public roadway controlled by the MDC. Commonwealth Avenue is a busy roadway serving Boston and Newton. It contains the terminus of the Commonwealth Avenue branch of the Green Line public transit trolley.

To the east the More Hall site is bounded by public green space consisting of a cemetery and public park. St. Thomas More Drive is a public roadway controlled by the MDC which connects Commonwealth Avenue and Beacon Street.

At the southern edge of the study area, along Beacon Street, is a residential area of two-story single family homes. At this edge, vehicle access to the existing 827 car parking garage can be made from Beacon Street.

The western edge is characterized by an 85 foot grade change between the Lower and Middle Campuses. Vehicular access between the two campuses is not possible and except for two major sets of pedestrian steps, at Higgins Hall and O'Neill Library, pedestrian access is confined to the northern and southern portions of the boundary on public sidewalks.

Boston College has recently purchased warehouse/office space at 1380 Soldier's Field Road in Allston, and is currently leasing space in St. Clement's Hall at St. John's Seminary and at 235 North Beacon Street in Allston (Map #1).

Area of Study - Chestnut Hill

Boston College's property in Newton is divided between two locations. The first is the Chestnut Hill area of Newton (Map #3A). There are three campuses in this area, Middle Campus, Upper Campus and the Hammond Street Triangle.

The Middle Campus is the center of Boston College academic activity. It is bordered on three sides by roads: Beacon Street, College Road and Commonwealth Avenue. The eastern edge of the Middle Campus contains the O'Neill Library, the focus of the campus, and a large grade change that drops down to the Lower Campus in Boston. The Middle Campus contains most of the academic facilities for Boston College. Its buildings have a distinctive Gothic architectural style.

The Upper Campus is residential. It contains Tudor style dormitories and O'Connell House, a student activity house. It is bordered by residential roads: Tudor Road to the north, College Road to the east, and Beacon Street to the south.

The Hammond Street Triangle is characterized by large old residential houses and carriage houses. These houses are used for administrative and academic services. The Boston College Child Care Center is in one of the restored carriage houses. The area is bounded by heavily travelled roads on two sides (Beacon Street and Hammond Street) and a quiet, residential street (Stone Avenue) on the third side.

Area of Study - Newton Campus

The other campus in Newton is on Centre Street, about two miles from the Chestnut Hill campus (Map #3B). This campus covers 40.2 acres spread over hilly terrain with several fields. It is bounded by Colby Road (a private Boston College owned street) and the Country Day School of the Sacred Heart on the north, a busy Centre Street on the east, a residential Mill Street on the south and Edmunds Park, a municipal park, on the west. The Newton Campus houses the Boston College Law School, the Fine Arts Department, the Women in Politics Program, freshmen dormitories, the Alumni Association, a small community of Jesuits and office space for research activities.

Enrollment Trends and Statistics

Boston College decided in 1976 to cap its overall enrollment at 14,000 students. As Boston College develops its plans for the nineties, it is its intention to keep enrollment at 8,500 undergraduates, 4,000 graduate students and 1,500 part-time students (Table #1). This is despite a large number of applications (Table #2). (Note that fall enrollments are reported. These tend to be higher than Spring enrollments due to between-semester attrition and January graduation.)

TABLE #1

UNDERGRADUATE AND GRADUATE ENROLLMENT
(Fall Semester)

Full & Part Time

Year	Undergraduate* Men	Undergraduate* Women	Graduate Men	Graduate Women	Total Men	Total Women	Total Enrollment
1976-77	4,695	5,204	1,867	1,846	6,562	7,050	13,612
1977-78	4,850	5,437	1,802	1,879	6,652	7,316	13,968
1978-79	4,625	5,560	1,783	1,945	6,408	7,505	13,913
1979-80	4,556	5,766	1,701	1,954	6,257	7,720	13,977
1980-81	4,603	6,164	1,642	2,036	6,245	8,200	14,445
1981-82	4,471	6,176	1,542	1,977	6,013	8,153	14,166
1982-83	4,397	6,132	1,540	2,000	5,937	8,132	14,069
1983-84	4,418	6,086	1,577	1,978	5,995	8,064	14,059
1984-85	4,515	6,068	1,559	2,068	6,074	8,136	14,210
1985-86	4,477	6,155	1,650	1,194	6,127	8,349	14,476
1986-87	4,316	5,915	1,562	2,200	5,878	8,115	13,993
1987-88	4,544	5,914	1,601	2,251	6,145	8,165	14,310
1988-89	4,614	5,917	1,679	2,351	6,293	8,268	14,561
1989-90	4,552	5,774	1,712	2,411	6,264	8,185	14,449
1990-91	4,564	5,654	1,807	2,490	6,371	8,044	14,515
1991-92	4,649	5,652	1,745	2,511	6,394	8,163	14,557

*Includes Evening College students

Source: Registrar

TABLE #2

FRESHMAN APPLICATIONS, ACCEPTANCES, AND ENROLLMENT

FULL-TIME

Fall	Applications	Acceptances	Acceptances as a % of Applications	Total Enrollment (Freshmen)	Enrollment as a % of Acceptances	Enrollment as a % of Application
1980	12,640	4,389	35	2,171	49	17
1981	12,748	4,227	33	1,944	46	15
1982	12,110	5,233	43	2,188	42	18
1983	12,414	4,890	39	2,338	48	19
1984	14,398	5,100	35	2,306	45	16
1985	16,163	4,938	31	2,377	48	15
1986	14,986	4,960	33	2,195	44	15
1987	15,593	5,029	32	2,281	45	15
1988	15,523	5,190	33	2,269	44	15
1989	13,526	5,069	37	2,118	42	16
1990	12,403	5,606	45	2,127	38	17
1991	11,516	6,423	56	2,578	40	22

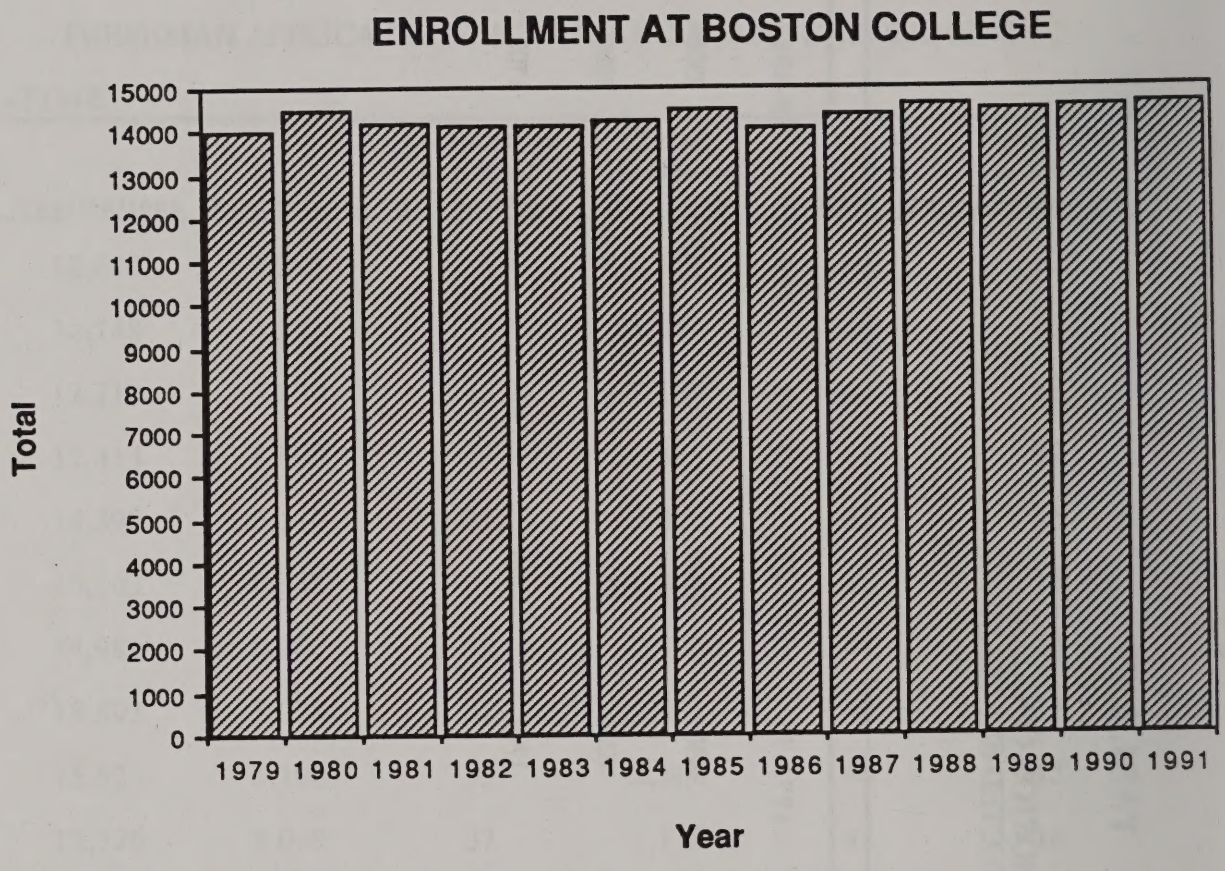
TABLE #3

BOSTON COLLEGE
PROJECTED ENROLLMENT

ENROLLMENT ASSUMPTIONS	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-2001
Undergraduate Students	8300	8300	8300	8300	8300	8300	8300	8300	8300
Graduate Students	4000	4000	4000	4000	4000	4000	4000	4000	4000
Part-Time Enrollment	1700	1700	1700	1700	1700	1700	1700	1700	1700

B.C. Master Plan *Draft*, December 1, 1991

GRAPH #1


ENROLLMENT AT BOSTON COLLEGE
Total
15000
14000
13000
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991
Year

Existing Uses

The Boston College Upper, Lower, Middle and Hammond Street Triangle Campuses are located adjacent to each other. While the campuses are separated by physical boundaries (hills and roads), their chief differences lie in their uses. The Upper Campus is residential. The Middle Campus houses the majority of the academic activity. The Lower Campus is devoted to recreational activities in the southern portion and residential use to the north. The Hammond Street Triangle, south of Beacon Street, provides space for academic and administrative support functions to the Middle Campus and program space for special interest groups (Map #4).

The Lower Campus is located in Boston. It is developed into two defined zones. The northern part of the site is devoted to dormitories and modular housing. The southern portion of the site provides additional recreational areas. All future development on the Lower Campus is planned to be respectful of these zones (Map #4).

The Newton Campus is home to the Boston College Law School, Fine Arts Department, the Women in Politics Program, freshman housing, a small amount of academic support space, the Alumni Association, two large recreation fields and the Quonset Hut/Gym. (Map #5).

Appendix E contains a listing of the sites, use, gross square footage, building height, parking and loading areas and existing linkage payment where applicable.

Campus Pedestrian Movement

Pedestrian movement on the main campus generally flows in a north-south direction throughout the campus (Map #6). Main destinations are in the academic center of the campus with pedestrian movement originating in the residential and parking areas to the north and south, as well as from the new parking garage facility to the east, adjacent to the stadium.

Movement between the Upper Campus and the Middle Campus is restricted primarily to the intersection of Beacon Street and College Road because of the steep drop-off at the edge of College Road further north. Pedestrian movement between the Middle and Lower Campuses is strongly affected by the large change in elevation. Movement is channeled to the stairs adjacent to the Chemistry Building to the south, the Higgins stairs at the campus mid-point, and the path north of the O'Neill Library (Map #6).

Parking areas for commuting students, faculty and employees are located chiefly at the periphery of the academic area and are accessed by vehicle from the surrounding major streets. This parking is accessed by pedestrians via routes previously discussed. There is also a shuttle bus provided to facilitate pedestrian mobility.

Pedestrian circulation to the Hammond Street Triangle is along the existing surrounding streets as well as by a pathway through the Murray property. A potentially dangerous condition exists in gaining pedestrian access to the Hammond Street properties east of the Beacon Street and Hammond Street intersections, most notably in the area of the McGuinn gate. Boston College plans to employ a traffic consultant to study the pedestrian movement here and to make recommendations for safety improvements.

Pedestrian movement on the Newton Campus is on sidewalks and existing roads. There are campus roads and parking lots that are located primarily on the south and west edges of the campus (Map #7). Movement between campuses is provided by a shuttle bus.

Campus Open Space

Major campus open spaces are an important factor in controlling the type and quality of campus activity, as well as providing strong positive image statements about the University. Several types of major open spaces exist on the Boston College Campus. The Upper Campus and Hammond Street Triangle have no major formal open space or courts. Their outdoor areas are chiefly lawns between buildings that are not now especially conducive to uses other than passive recreational activity.

On the Middle Campus several important spaces exist. The green to the north of McElroy Commons is the largest formal green area existing on-campus. It is primarily used for passive activities. Further to the north, spaces surrounding Gasson Hall are extremely formal in nature and are very important in setting a traditional formal image for the University (Map #8).

The Lower Campus open spaces are not well organized. A large recreation space (Shea Field) exists to the east of the stadium while publicly-owned open park areas exist east of St. Thomas More Drive. Other open spaces are poorly defined and are fragmented. Many areas are devoted to surface parking.

The Newton Campus open space is loosely organized with large spaces existing between buildings. The majority of the large areas of usable open space exist near the Quonset Hut/Gym at the northwest corner of the site (Map #9).

Traffic

In 1990, Boston College commissioned Tippits-Abbett-McCarthy-Stratton (TAMS) to do a traffic study of the Chestnut Hill Campus. Vanasse Hangan was commissioned to do a study of the Newton Campus. Both studies reported that the traffic around the campuses has stabilized. This is due to a capping of Boston College enrollment and the maturing of development in the surrounding neighborhoods.

Boston College attempts to lessen traffic impact include:

- A bus shuttle service between the Newton and Chestnut Hill Campuses and Cleveland Circle area, which allows for a lighter volume of student traffic.
- Constant communication with the Boston, MDC and Newton Police Departments to help regulate traffic flow.
- Working with MDC and other officials to increase traffic flow (such as banning of parking along St. Thomas More Drive).
- Prohibition of freshmen and sophomore residents' cars, with a limited number of upperclassmen allowed stickers.
- Strictly enforced sticker policy that makes it more difficult for resident students to bring cars from home, and encourages employees and commuters to park on campus.
- Guard gates that restrict entrances.
- Programs with the MBTA designed to encourage the use of public transportation and lessen traffic (see enclosed)
- Encouragement of use of bicycles and walking by employees and students

The traffic impact analysis done by TAMS which is summarized in the following pages, studies the intersections on the periphery of the Chestnut Hill Campus on Commonwealth Avenue and Beacon Street.

Commonwealth Avenue

Commonwealth Avenue, a major arterial connecting downtown Boston to Brighton and Newton, borders the Boston College campus on the north and typically has two travel lanes and a parking lane in each direction. The Boston College Branch of the MBTA's Green Line service, which terminates at the Lake Street station, operates within the median of Commonwealth Avenue. Trains leave Lake Street Station approximately every five minutes during the peak periods, and 8-10 minutes off-peak. Service runs from 5:00 AM to 12:30 AM and travel time to downtown is between 30-40 minutes.

At the unsignalized intersection of Commonwealth Avenue/Chestnut Hill Drive, Commonwealth Avenue has two travel lanes and a parking lane in each direction. The northbound Chestnut Hill Drive approach is controlled by a stop sign and left turns are prohibited. The southbound approach at this intersection is an access driveway for Reservoir Towers, a residential building. The driveway serves as a drop-off/pick-up location and is utilized by few vehicles during peak periods. Sight distance is good for turning vehicles.

Operation of the two signalized intersections at Commonwealth Avenue/Lake Street and Commonwealth Avenue/Father Hertihy Terrace is complicated by Green Line trolley vehicles crossing Commonwealth Avenue to/from Lake Street terminal. For motorists, numerous distractions exist at these adjacent intersections, including the Green Line trolley operation, pedestrian activity generated by the storefronts on Commonwealth Avenue, and high turnover parking on Commonwealth Avenue.

At Commonwealth Avenue/Lake Street, the eastbound Commonwealth Avenue approach is used primarily as a left turn lane and two through travel lanes. The westbound approach has an exclusive left turn lane, two through-travel lanes, and a parking lane that is often used as a short right turn lane. The northbound St. Thomas More Drive approach is used as two travel lanes. A four phase signal is used, with Commonwealth Avenue, eastbound and westbound and St.

Thomas More Drive each having its own exclusive green phase. The fourth phase is for the Green Line trolley crossing and the concurrent eastbound Commonwealth Avenue phase. Parking access to the storefronts on Commonwealth Avenue is made from Lake Street, which is one way northbound. The proximity of this access to the intersection sometimes interferes with vehicular operation.

The traffic signal at Commonwealth Avenue/Father Herlihy Terrace is continuously green for Commonwealth Avenue traffic, unless activated by the pedestrian buttons. Most pedestrians, however, do not use these buttons and choose to cross traffic on their own. The limited pedestrian actuation, the sole use of the southbound approach by MBTA vehicles and the one-way southbound operation of Father Herlihy Terrace combine to limit the number of turning conflicts at this intersection. No lanes are marked on Commonwealth Avenue but each approach is used as two travel lanes. On the westbound Commonwealth Avenue approach, metered parking and a cab stand exist.

At the unsignalized intersection of Commonwealth Avenue/Old Colony Road/Mt. Alvernia, College Road is one-way northbound. Sufficient width exists on the northbound College Road approach and southbound Mt. Alvernia approach for turns to be made from separate lanes. Northbound and southbound left turns are hindered by the heavy volume of through traffic on Commonwealth Avenue, but sight distance is good. A frontage road parallels Commonwealth Avenue to the north providing access to private residences.

Beacon Street

Beacon Street is another major arterial which provides access from Boston, through Brookline to the Boston College Campus. At the unsignalized intersection of Beacon Street/St. Thomas More Drive, Beacon Street is marked as one travel lane in each direction. However, sufficient width exists for turns to be made without impeding the through traffic flow. The

southbound St. Thomas More Drive approach has a right turn lane and a left/through lane separated by a delta traffic island, with each controlled by a stop sign. Beacon Street traffic in this area is heavy and often causes delay for the St. Thomas More Drive approaches. Gate House Road provides access to a small residential enclave and is controlled by a stop sign. Sight distance is good from all approaches.

Beacon Street/Reservoir Avenue and Beacon Street/parking garage access operate as one offset unsignalized intersection. Reservoir Avenue is one-way northbound and provides egress from a residential neighborhood. Beacon Street is sufficiently wide for turning and through movements to be made without conflict, although no travel lanes are marked. The egress lanes from the parking garage are almost directly opposite the Reservoir Avenue approach, forming a four-way intersection. The entrance to the parking garage, however, is located 30 feet to the east, sometimes causing conflicts between left turning traffic exiting the garage and eastbound Beacon Street traffic turning left into the parking garage. Separate left and right turn lanes are provided for the egress from the parking garage, and no through moves are permitted since Reservoir Avenue is one way northbound. Sight distance is good for all turns.

The signalized intersection of Beacon Street/Hammond Street/College Road is controlled by two phase signal operation. Beacon Street has two travel lanes in both the eastbound and westbound direction, and although no travel lanes are marked, vehicles use the approaches as a left turn lane, and a through travel lane. College Road is one way northbound, and Hammond Street is one way southbound, north of the intersection. Southbound turn movements from Hammond Street to College Road are made without conflict to the intersection, since the Hammond Street approach has a wide radius left turn lane. The southbound Hammond Street approach has a free right turn lane provided, separated from other traffic movements by a delta traffic island.

The Hammond Street Bridge, located approximately one mile south of Beacon Street is one of the few local access points to Route 9 in Brookline. The bridge, however, was closed in

November 1989 for structural and safety reasons and is currently being redesigned by the Massachusetts Department of Public Works. The bridge will likely be reopened in Spring 1992. Thus, the existing traffic volumes on Hammond Street are low compared to volumes that will be experienced when the bridge is reopened.[1]

The intersections were subjected to level of service analysis using the methodology of Transportation Research Circular Number 212 (TRC) January 1980. "Level of Service" (LOS) is a measure or index of the quality of traffic flow. This index is a standardized method commonly used by transportation engineers to make objective comparisons of the ease or difficulty of traffic flow at intersections.

Six levels of service have been established. They are designated A (best) through F (worst) and cover the entire range of traffic conditions that may occur.

The following LOS definitions are associated with signalized intersections:

LOS	Volume/ Capacity Ratio	Avg. Standing Delay Seconds/Vehicle
A	0.00 - 0.60	0.00 -16.0
B	0.61 - 0.70	16.10 -22.0
C	0.71 - 0.80	22.10 -28.0
D	0.81 - 0.90	18.10 -35.0
E	0.91 - 1.00	35.10 -40.0
F	1.00	40.1+

The traffic counting program indicated that traffic volumes on major roadways in the vicinity of the campus have remained unchanged between 1979 and 1990. According to TAMS, the same pattern should hold true for the next 10-year period.

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[1] TAMS 1990 Report

Levels of Service conditions are summarized below:

Signalized:

Location	Time	LOS For Existing Condition and Up to Condition
Commonwealth Ave/ Lake St.	AM Peak	C
	PM Peak	F
Beacon St/ Hammond St./	AM Peak	B
	PM Peak	A/B
	7-8 PM	B

At Beacon Street/Hammond Street, the analysis assumed a three-phase traffic signal operation. This is a false view because the bridge was closed when the study was done.

Unsignalized:

Location	Time	LOS For Existing Condition and Up to Condition
Commonwealth Ave/ Chestnut Hill Rd.	AM Peak	A
	PM Peak	A/C
Beacon St/ St. Thomas More Rd.	AM Peak	A/E
	PM Peak	A/F[1]

Mitigation

Boston College proposes developing a "Transportation Master Plan" which would survey the needs of students, staff and the effects on the surrounding community. We propose setting up an ongoing advisory subcommittee which would continue to address the ongoing transportation problems and develop goals for parking and traffic for the school.

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[1] TAMS 1990 Report

Boston College also suggests the following measures to minimize the impact of traffic. The stationing of a traffic control officer on Commonwealth Avenue to handle and adjust traffic flow at peak hours could assure that levels of service are maintained at acceptable levels. TAMS also suggests that a traffic light adjustment at Lake Street could change the PM Peak from an "F" to a "D". Boston College is working with the neighbors, the Mayor's Office of Neighborhood Services and the Boston Transportation Department to effect this change.

The other "F" LOS intersection is at the intersection of St. Thomas More Drive and Beacon Street. Boston College is working with neighbors and the City too find a solution to this problem.

Boston College is working to develop incentives for its students and employees to use the MBTA.

By means of health bulletins, Boston College is also working to encourage walking and the use of bicycles. New bicycle racks have been installed on campus.

Parking

As is true throughout the greater Boston area, parking is at a premium at Boston College. There are presently 2,858 spaces on the Chestnut Hill campuses and 577 spaces on the Newton Campus. There are an additional 167 spaces at St. Clement's Hall, 235 No. Beacon Street and 1380 Soldiers Field Road. Shea Field holds an additional 700 cars for large-scale events. (See Appendix for Inventory of Parking.) Despite availability of spots, students and staff sometimes park in neighborhoods.

Boston College's efforts to mitigate parking problems include:

- Prohibition of freshmen and sophomore resident students from bringing cars to campus;
- Enforcement of a sticker program which restricts unnecessary automobiles from campus and neighboring streets;
- A sticker program which entitles commuter students to park on campus for a modest fee and employees to park for no fee;

- Provision of a shuttle bus service between the two campuses, to and from off-campus housing and to and from public transportation;
- Control of all entrances with guard gates;
- Distribution of information about using the MBTA;
- Enforcement of internal parking restrictions;
- Working with the MDC, elected officials and city officials to get Resident Only parking.

Environment

Arthur D. Little did an environmental assessment of the effect of Boston College's future development plans on the surrounding communities. As part of its Project Notification to the City of Boston for the Lower Campus Housing Project, further environmental impact assessment will be done.

The ADL study is summarized in the next few pages.

Land and Area Land Use

1. Setting

Boston College is located in the City of Boston and the City of Newton. Within Boston, the community adjacent to and most affected by the University is Allston-Brighton, a densely populated residential area composed of apartment buildings, generally less than 8 stories high. Several commercial strips exist in the neighborhood. Many of the neighborhood's apartments are occupied by students from the many universities and colleges in the Greater Boston area. Newton is primarily a residential suburb, dominated by one- and two-family houses. Several small contained commercial areas exist. Five golf courses comprise the majority of the open space available in Newton.

2. Impact

Little or no adverse impact is expected on land use in either Boston or Newton. The major impact will likely be to alleviate slightly the demand for housing in Allston-Brighton by students.

Approximately 1,800 to 2,000 Boston College students reside in that neighborhood. The availability of more on-campus housing will allow some students to move on campus.

After the implementation of the 10-year plan, Boston College will remain an institution in the middle of a primarily residential area. As such, there is an inherent conflict in land use as there has been since 1911 when the current campus was established. However, the conflict will not be exacerbated as a result of this plan, assuming the new buildings are in scale with those of the rest of the campus and the surrounding area.

3. Mitigation

Boston College's plans will not adversely impact the land use of adjacent neighborhoods. However, a tension will continue to exist between the University and the neighborhoods because of conflicting goals and objectives, e.g., neighborhood concerns over traffic caused by University events. That tension can be ameliorated if the University continues to consult regularly with representatives of the neighborhoods regarding future plans and in the exploration of alternatives to address community concerns.

Aesthetics

The University recognizes that it is important to keep the aesthetic considerations of height, types and colors of materials and landscaping in keeping with the design of the Boston College Campus. The neighborhood and the University is concerned about continuing to enhance the beauty of their area.

Demographics

The impact of building new dormitory spaces on the demographics of Allston/Brighton would be to take a significant population of up to 900 out of the neighborhood. The density in the lower campus would be increased.

At present, thirty-seven percent (37%) of Boston College dormitory rooms are in the City of Boston. Sixty-three percent (63%) of dormitory beds are located in the City of Newton. The addition of 900 beds would raise that figure to forty-two percent (42%) housed in Boston. The addition of the housing would also mean that Boston College would be providing on-campus housing to almost seventy-five percent (75%) of its full-time undergraduates.

Employment

The employment requirements for the new development will trigger the Boston resident and minority hiring requirements. Boston College has made every effort to exceed these requirements in recent projects.

Boston College will request that its contractors give preferential hiring to Brighton and Allston residents. We are also working with the City's Economic Development Corporation (EDIC) to help find way to have Brighton/Allston residents served. In addition, the University is in the process of instituting the Boston College Minority Business Enterprise Program, which will set goals to use Greater Boston-based minority firms for procurement of goods and services. Boston and Newton employment needs would be positively influenced by the proposed construction projects.

Service

Boston College relies on a number of services which are, in part, provided by the host communities. Police, fire and health services would be affected by the new development.

a. Police:

The University Campus Police Department is composed of 45 sworn police officers, plus 13 superior officers. Its members are trained and certified with municipal police forces. The officers are assigned to three primary eight-hour patrol units and a specialized Crime Prevention

fourth unit which is assigned in eight hour units to areas of the campus in need of high frequency patrol coverage. There is also a uniformed unit of eight officers, who deal specifically with sexual assault incidents. The Boston College Campus Police Department works closely with the City of Boston and the City of Newton Police Departments. The MDC Police and the B.C. Police also enjoy a close working relationship.

b. Fire:

Like almost any school or college, Boston College and its students are bothered by a number of false fire alarms. The response from both cities to every alarm is excellent. The Boston College Fire Marshal, physical plant personnel, the Boston College Housing Office and the Dean of Students Office work hard with the respective departments to ensure strict adherence to the highest standard of fire protection and building safety, and thereby minimize the danger of actual fire as far as possible. Special fire alarm boxes are being installed in Residence Halls that are limiting the number of false alarms. This program will continue until all Residence Halls have these special fire alarm boxes.

c. Health:

Boston College operates two health facilities: a day clinic located in Cushing Hall on the Chestnut Hill campus, and a 20-bed inpatient clinic, Spellman Infirmary, on the Newton Campus. Between these two facilities, all minor injuries and routine illnesses can be easily treated.

Physical Systems

The issues of waste, both solid and water, noise, air quality and the potential ecological disruptions were addressed in the ADL report. The report determined that regulations required by both Newton and Boston, the Department of Environmental Quality Engineering, the Massachusetts Water Resources Authority and other agencies requiring permits would safeguard the environment.

Impacts

The proposed development represents a potential source of demand for additional services. During the construction phase of the projects, cooperation from both Boston and Newton police will be needed to ensure that truck and automobile traffic generated by the construction work in progress will not obstruct streets leading to and surrounding the Chestnut Hill and Newton campuses. In particular, MDC police may need to be on hand in greater numbers or on a more regular basis to oversee traffic along St. Thomas More Drive. With advance planning, and given the successful cooperative relationship that presently exists between Boston College and local and MDC police, this short-term impact should be easily minimized.

Over the longer term, the potential need for police, fire and health services will be slightly increased by the existence of additional dormitories and the presence of approximately 900 more residents on the Lower Campus and 350-400 on the Newton Campus. Actual increased demand for health services should be slight, since the total number of Boston College students will not increase, merely the density of the on-campus resident population. However, some further demand for fire and police assistance may be seen. The new dormitories may become the site of additional false or legitimate fire alarms to which the Boston and Newton Fire departments would have to respond.

In summary, no major or lasting negative impacts on Boston College's service needs and resources are expected to occur as a result of the proposed projects.

Air Quality

There will some air emission during the construction phases from heavy duty and diesel powered equipment. There will also be some dust from the disturbance of existing soil. The greatest problems will be restricted to the areas immediately bordering the sties. Since the new construction sites are interior to the Campuses, the effects on the neighborhoods will be negligible.

Ecology

The major part of new construction will occur in fill materials in former lake beds. Because of the unconsolidated and heterogeneous nature of these fill materials, foundations will rest on concrete piles driven to bedrock, and are expected to be stable. The pile driving process itself is not expected to have an impact on the stability of surrounding lands or structures. As a precaution, the Metropolitan Water Resources Authority stations an observer and a seismic recorder in the vicinity of current construction to monitor any potential impacts to subsurface tunnels and water mains. These records would provide a point of comparison for evaluating any potential impacts of pile driving during future construction on the campuses.

Erosion of soil materials as a result of construction disturbances is expected to be a minor problem in the former lake bed areas, because of the nearly flat topography.[2]

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[2] ADL Study

CHAPTER FOUR
PROPOSED PROJECTS

Parking Garage

Architect

Livermore, Edwards & Associates
Somerset Court
281 Winter Street
Waltham, MA 02154

Need and Use

Like many urban institutions, Boston College continues to struggle to provide sufficient space to accommodate the vehicles of the many people who arrive on campus. These include members of the Boston College community who require parking on a regular basis and the many visitors who come to Boston College for business purposes, for special events and to visit relatives and friends.

Unlike many institutions, Boston College is not well-served by public transportation. Although the MBTA Green Line terminates its run at Boston College, its origin and route do not serve the many students and employees who must commute from suburbs of Boston. Boston College then, except for Boston residents, has very few alternatives but to provide parking for students, employees and visitors. While schools located in downtown Boston or Cambridge can discourage on-campus parking by charging high parking fees, similar programs at Boston College would merely penalize the commuter from Arlington or Milton or Needham while simultaneously providing disincentives to park on-campus. This in turn would lead to more parking on neighborhood streets. As a result, Boston College charges no parking fees to employees, except administrators and certain faculty who commute to campus, and only nominal fees to commuter students ($45 per year).

The proposed parking structure is supported by the TAMS Traffic Impact Studies of 1985 and 1990 and would add to the University's inventory of parking spaces. These spaces would be used on a daily basis by faculty, staff and students. They would also be available for athletic and special event parking in the evenings and on weekends.

At the request of the neighborhood Master Plan Task Force, Boston College has agreed to an experiment to provide 200 to 250 additional parking permits to resident students once this parking structure is completed. The objective of this program is to relieve some of the parking problems on neighborhood streets adjacent to the campus. Boston College policies for resident student parking are described in detail elsewhere in this plan. They have been and continue to be highly restrictive, to the point of writing to parents each year specifically requesting that they not allow resident students to bring automobiles with them to Boston College. This consistently strict policy has been effective.

While the University has agreed to the experiment described above, it fears that a loosening of its present policy will, over time, result in more cars being brought to campus and that the objective of removing resident student vehicles from neighboring streets will not be accomplished. Boston College believes that its support of "Resident Only" parking is a much more effective way to achieve this common goal of the neighbors and the University.

If the experiment mentioned above does not work, we will have a difficult time reducing the number of student stickers later.

Project Site (Map #10)

The proposed parking structure has been proposed for the Lower Campus because of its proximity to large event facilities for campus visitors and to the Middle Campus for daily use by faculty, staff and students.

Alternatives Considered:

SITE A1 - A building on this site would be programmed for seven levels of parking surrounded by dormitories facing to the outside of the parking structure. This scheme was considered in early studies. While it has the advantage of being located near a major vehicle entry point, it has been removed from present consideration because it locates the parking too remotely from the Middle Campus. Because this design builds parking on an existing parking lot, the net parking gained is reduced. In addition, future expansion would be very difficult because the parking and housing are so closely related.

This scheme would also produce a very large building that would have an overall mass that would not be compatible with the adjacent existing buildings. Finally, it would not be attractive from the corner of Commonwealth Avenue and Lake Street.

SITE A2 - A building on this site would be a combination of up to five stepped levels with one long elevation incorporated into the hillside below O'Neill Library. This is the preferred site recommended by Livermore, Edwards & Associates, the firm employed to assist the University in its campus planning effort.

SITE A3 - A building on this site would be a three, four, or five level structure. This site was removed from consideration because it locates the parking more remotely from the Middle Campus than Site A2 and the structure does not phase well with the eventual Recreation Complex replacement. It would be difficult to fit a large garage on Site A3 without removing part of the existing Recreation Complex, or without forcing the removal of the north end of the existing track from inside the stadium.

Site Selected

Site A2 has been selected as the location for the new parking structure for the reasons stated in the discussion above. The construction of this garage will provide convenient parking for Middle Campus employees and visitors to the campus and readily accommodate vehicles during major events. It should be noted, however, that at major athletic events, such as home football games, with attendance of 32,000, it will continue to be necessary to use satellite parking facilities to accommodate the vehicles of those who drive to these games.

As the design of the parking structure progressed, plans were begun for a Campus Center on the immediately adjacent site to its south. While originally conceived as two independent adjacent projects, Parking Structure and Campus Center, as the design evolved it became apparent that there were considerable architectural, esthetic and functional advantages to integrating these two projects. As of October 1, 1991, the schematic design now in place is for a single project so integrated on Sites A2 and B1. It was this integrated design that was presented by Mr. Edwards, the project architect, at the meeting of the neighborhood Master Plan Task Force on May 16, 1990.

Square Footage and Height

The parking structure is programmed to accommodate approximately 500-800 vehicles. This requires 320 square feet per vehicle. The portion of the project that in the current design will appear as "garage" will be four levels high.

Parking and Traffic

The project would not increase traffic to neighborhood areas and would alleviate parking problems (see TAMS study in Appendix). The entrance and exits to the facility would be via the St. Ignatius Gate on the Lower Campus Road; and via the Edmond's Hall entrance, past the Recreation Complex.

Timetable

The project was halted late in the spring 1990 after the completion of the schematic design phase. Unresolved issues raised during the IPOD Master Plan process preclude the investment of additional funds in the architectural fees required to initiate and complete the design development and construction drawing phases of the project.

The economic conditions, the effect on tuition costs during a poor economic climate as well as the overwhelming need for additional housing, delayed this project on our timetable.

The parking structure and the Campus Center have become priority projects both within the University community and in the surrounding neighborhoods. The projects will receive high status in the University's building program.

Campus Center

Architect

Livermore, Edwards & Associates
Somerset Court
281 Winter Street
Waltham, MA 02154

Need and Use

It has long been recognized that Boston College requires a Campus Center. McElroy Commons, built in 1960 on the Middle Campus to serve as a Student Center, was inadequate by 1975. During that fifteen year interval, there was considerable growth in numbers of students, faculty and staff, all of whom had a daytime presence on the Middle Campus and who made extensive use of the dining, bookstore, and mailroom facilities in McElroy.

During the same time, the student population shifted dramatically from being primarily commuters to being predominantly resident students. While commuting students use campus facilities for 4-5 hours each day, resident students are on-campus 24 hours each day and require significantly more services and facilities. The growth in the number of student organizations is indicative. In 1960 there were just five student clubs and organizations. Today there are approximately one hundred and thirty-three. Accompanying the dual growth in student population and resident students has been the growth in professional and support staff to serve them.

While the student population itself has not changed in size from 1976 to 1991, the proportion of resident students has continued to increase and, consequently, there is even more pressure on dining facilities, on the mailroom and bookstore, on office space for staff and for student activities and most notably on meeting space.

As important as is the objective to meet readily acknowledged space needs is the corollary objective to provide a locus for student gatherings and for formal and informal student activities. By providing on-campus places for students and by actively programming the spaces with activities which are of interest to students and by enhancing on-campus student dining services,

Boston College will be able to retain on-campus those students who now fill their needs in nearby off-campus locations.

A program for the Campus Center has been prepared by the Office of the Vice President for Student Affairs with the assistance of Earl Flansburgh and Associates and the University's Office of Space Planning and Utilization.

This program reflects the University's strategy to develop an integrated campus center system made up of services and spaces in the proposed new Campus Center, McElroy Commons and O'Connell Hall. The major elements of this program are detailed in Table #5.

It is anticipated that the Campus Center will operate at late hours and through the weekends in order to meet the needs and lifestyles of the students.

Some of the early design alternatives for this project included an office wing made up of an additional 30,000 square feet of space. This wing ran north-south along the east face of the proposed Campus Center/Garage. The office wing was included in the design presentation made to the neighborhood Master Planning Task Force by Mr. Edwards on May 16, 1990.

As of October 1, 1991, the office wing, while still a possible alternative, is not under active consideration as a part of this project. Reasons for this decision relate to delays in the approval process, desires to reduce both the mass and the cost of the project and the availability of alternate facilities to meet the demand for office space.

Project Site

The siting of the proposed Campus Center has been established. It will be located on Site B1 noted on Map #11 and will be integrated with the proposed new Parking Structure, sited directly adjacent to the north. (See Parking Structure, earlier in chapter).

On this site it will serve the needs of Lower Campus resident students, be readily accessible to the parking structure, and to faculty, staff and students on the Middle Campus, as well as to visitors to Middle Campus and those who attend athletic events in Alumni Stadium and Conte

Forum. It will, in addition, provide a much needed vertical link between the Lower and Middle Campuses. And further, it will provide the link precisely where it is required in order to gain access to the center of Middle Campus academic activities, since there is planned a physical link between this Center and the lower end of the O'Neill Library atrium stairway. And, while not as direct, it will provide for the first time an accessible bridge over the 85 foot lower to middle campus grade differential for persons who are physically challenged.

The Campus Center on this site will also allow for the distribution of student services and student activity spaces over the three primary areas where demand is generated, viz. Lower, Middle and Upper Campus. It will allow for the optimum use of existing facilities in McElroy and O'Connell and preclude the need for siting a large central facility, which would require well in excess of 200,000 gross square feet.

Square Footage and Height

The Campus Center as presently proposed is 90,000 gross square feet on four levels with an estimated height of 70 feet.

Parking and Traffic

Parking for the Center will be immediately adjacent in the new garage. The primary users of the Center will be students, faculty and staff already on campus. Entrances and exits to the facility will be via the St. Ignatius Gate on the Lower Campus Road, and off St. Thomas More Drive via the Edmond's Hall entrance, past the Recreation Complex.

Timetable

The project was halted late in the spring 1990 after the completion of the schematic design phase. Unresolved issues raised during the IPOD Master Plan process preclude the investment of

additional funds in the architectural fees required to initiate and complete the design development and construction drawing phases of the project.

The Campus Center and the parking garage have become priority projects in the University's building program. However, as the project evolved, they became one project with the garage. The economic conditions, the effect on tuition costs during a poor economic climate as well as the overwhelming need for additional housing have contributed to the delay.

RATIONALE AND PROGRAM FOR A NEW CAMPUS CENTER AND RENOVATION OF MC ELROY COMMONS

May 1991

A. DEFINITION OF NEED

1. Previous Studies
   Since 1984, four major reports, including two proposals by architects (The Architects Collaborative in 1986 and Earl R. Flansburgh Associates in 1989), have been submitted that document the need for a University Campus Center and a major renovation of McElroy Commons. The current campus commons building was built in 1960 for a principally commuter college with a total of approximately 1,000 resident students. Today 5,800 undergraduates live on-campus and 1500-2000 additional undergraduates rent accommodations in the surrounding communities. The Newton Campus contains no campus center facilities other than a dining hall and McElroy Commons remains virtually unchanged since 1960.

2. Current Office and Meeting Space for Student Clubs and Organizations

   a. The activities of clubs and organizations are major contributors to the education and growth of students outside the classroom. There are presently 133 active student clubs or organizations.
   b. At present there are only 14 rooms, a number of them windowless converted storage areas, which serve as offices and meeting spaces for a total of 24 student groups.
   c. For 109 of the 133 student organizations there are no offices or meeting spaces.
   d. Most student organizations operate out of student rooms in the residence halls.

3. Meeting Space and Function Rooms

   a. On the Middle Campus and on the Newton Campus there are presently no common area rooms available for student meetings between the hours of 7:00 a.m. and 6:00 p.m. on class days. The four rooms previously available to students during the day (McGuinn III Lounge, McGuinn V Lounge, McElroy Board Room and Murray Conference room in McElroy) have been converted to classroom use during the day and remain set up as classrooms in the evenings. The use of dormitory lounges for meetings creates building security problems and diverts the use of these lounges by residents of the buildings for their intended purposes .
   b. The remaining available conference rooms (Shea in Conte Forum and the Hovey House Library) are booked extensively for administrative use and are rarely available for student meetings.
   c. Meeting and function room space is a campus-wide problem with no solution currently in sight.

4. Dining Facilities

   a. Current Middle Campus dining facilities suffer from over-crowding and over-use as meeting and function rooms as well as public dining areas. They were designed for a campus community half the size of the current student, faculty, staff and administrative population.
   b. A particular pressing need is for dining function rooms which can accommodate meetings with meals for 15 to 40 people.

5. Bookstore Facilities

   a. Studies by consultants have indicated that the minimum square footage required by the campus bookstore to meet the current needs of the Boston College community is double that which currently exists -- 20,000 sq. ft. vs. 10,000 sq. ft.
   b. The current Bookstore was constructed in 1960 for a community half the size of Boston College in 1991.

6. Performing Arts and Movie Theater Space

   a. There are presently 22 active performing arts (music, drama, dance) groups on campus.
   b. The only available spaces for practices and performances are the two theaters in the Robsham Center and the main foyer in O'Connell House on the Upper Campus. These spaces are booked solid early each semester, leaving no space for many of the most creative and educational groups of students on the campus.
   c. There is no movie theater anywhere at Boston College. Movies are currently shown approximately 4 nights per week on a space available basis in classrooms, auditoriums and dormitory lounges.
   d. Other than the heavily booked Band Practice Room in Conte Forum, there currently are no practice rooms at Boston College for small bands, singing groups or individual instrumentalists.

7. Administrative Office Space

   a. The Office of Dean for Student Development currently has 10 full time administrators plus support staff spread over four locations due to lack of a centralized office area.
   b. Dining Services has a pressing need for centralized office space.
   c. The Chaplains have also requested the consolidation of offices currently situated in three locations.

8. Lounge and Recreation/Games Space

   a. There is an urgent need for common area lounge spaces on the Middle Campus where small groups can meet informally and interact. With the exception of Fulton Hall and a few nooks in Cushing Hall, such space is virtually non-existent.
   b. There are no recreational games areas (pool tables, ping pong, music rooms, table games) anywhere at Boston College. On other campuses, such areas are highly utilized by students.
   c. In the absence of other space, O'Neill Library has become the social gathering area on the Chestnut Hill Campus.

9. Post Office Facilities

   a. Current Campus Mail and U.S. Post Office facilities in McElroy are grossly inadequate in physical size, accessibility to delivery vehicles and working environment.
   b. Consultants have made major recommendations on revising the entire University mail operation.

10. Volunteer/Community Service Center

a. In addition to the PULSE social action/academic reflection program that involves over 300 students, there currently are 12 other volunteer programs doing community service from Boston to Appalachia to South America. These Organizations have no office space.

b. There is a growing consensus that a community service experience should be a component in the education of every undergraduate at a Jesuit college. Creation of a space for a Volunteer/Community Service Center would make possible a long-desired resource facility and clearing house for students seeking to become involved in service programs.

B. THE PROPOSAL

1. Construct a Campus Center connecting the Middle Campus to the Lower Campus on the site below O'Neill Library between the bluff and the Recreation Complex. Minimum size should be at least 90,000 sq. ft. as proposed in the 1989 Flansburgh Report. This report, however, should be re-evaluated in light of: a) the 800 to 900 additional resident students in the proposed new Lower Campus Residence Halls; b) the construction of a new dining hall on the Lower Campus; and, c) the lack of storage space and recreation rooms in the 1989 proposal.

2. Renovate McElroy Commons to double the size of the Bookstore, provide new Dining Services office space and to expand the Post office.

Prepared by: Kevin Duffy
Vice President for Student Affairs

KPD/mvz

TABLE #4

CAMPUS CENTER
PROGRAM RECOMMENDATIONS

FUNCTION AND NEW PROGRAMMING	PROPOSED SQUARE FEET		
	Campus Center	McElroy	O'Connell
Dining Services	20,125	42,085	3,042
•Food Counter Service Area			
•Food Counter Dining Area			
•Table Service Dining Area			
•Dining & Catering Offices		3,341	
University Function Rooms	7,803	2,283	
Student Organizations	7,613	5,480	
•Graduate Association and Center			
•Computer Lounge and Information Center			
•Student Agencies			
•Humanities Series			
•Women's Resource Center			
•Pulse Programs			
•Honor/Pre-Professional Academic Programs			
•Inter-Cultural Affairs Service Organizations			
•Sports/Games/Clubs			
•Publications: Media and Political			
•Music and Performing Arts			
•O'Connell Staff Housing		668	
Dean for Student Development	6,958		11,553
Student Activity Centers	6,613	5,118	
•Graphic Center			
•Exhibit/Gallery Center			
•Coffee House/Sweet Shop/ Pizza Shop			
•TV Lounge			
•Music Practice Rooms			
•Lounges			
•Game Rooms			
•Automated Teller			
Movie Theater/ Multi-Media Center (325 fixed seats)	5,267		

FUNCTION AND NEW PROGRAMMING	PROPOSED SQUARE FEET		
	Campus Center	McElroy	O'Connell
UGBC (Boston College Student Government)	3,117		
•President, Vice-President, Secretary			
•Finance Offices			
•Communications			
•Programming			
•Cabinet			
•Senate			
•Conference rooms			
Bookstore	2,496	17,854	
University Chaplaincy	1,857		
Boston College Mail Service	3,358		
Post Office	1,012		
Buildings & Grounds			569
Total Square Footage (Net Usable)	**66,219**	**76,161**	**15,832**

Further programming options, along with uses during weekend and late hours, will be developed by a new programming committee. The suggestions and concerns of the Task Force will be brought to this committee.

Dormitory

Architect

Perry-Dean-Rogers and Partners
177 Milk Street
Boston, MA 02109

Need and Use

Presently, Boston College houses 5,700 of its 8,500 full-time undergraduate students in campus residence halls. As of July 1, 1991, the University had a waiting list of 1,200 upper-class undergraduate students requesting on-campus housing, a number that has remained constant for the past decade. In 1991, continuing a ten year trend, 96% of freshmen applicants to the University requested on-campus housing (see Table #5). Clearly, there is a great desire on the part of students presently attending Boston College and those who wish to attend to live in on-campus residences.

Project Site

Throughout comprehensive campus planning efforts during the decade of the 1980s, Boston College has studied all of the potential sites available to it for the construction of new buildings on its campuses. The objective of these planning efforts, carried out by external professional campus planning firms in concert with Boston College's senior management and Trustees, has been to insure an orderly, rational, aesthetic development of the University's campuses, the proper location of new buildings and the meeting of identified space needs through the year 2000.

In the context of these campus planning studies, a great deal of time was spent examining alternative dormitory sites. During the ten year time horizon of this Master Plan, Boston College intends to build new housing for both graduate students and undergraduates. During the latter half of this Plan a third new dormitory project is planned. This one, however,

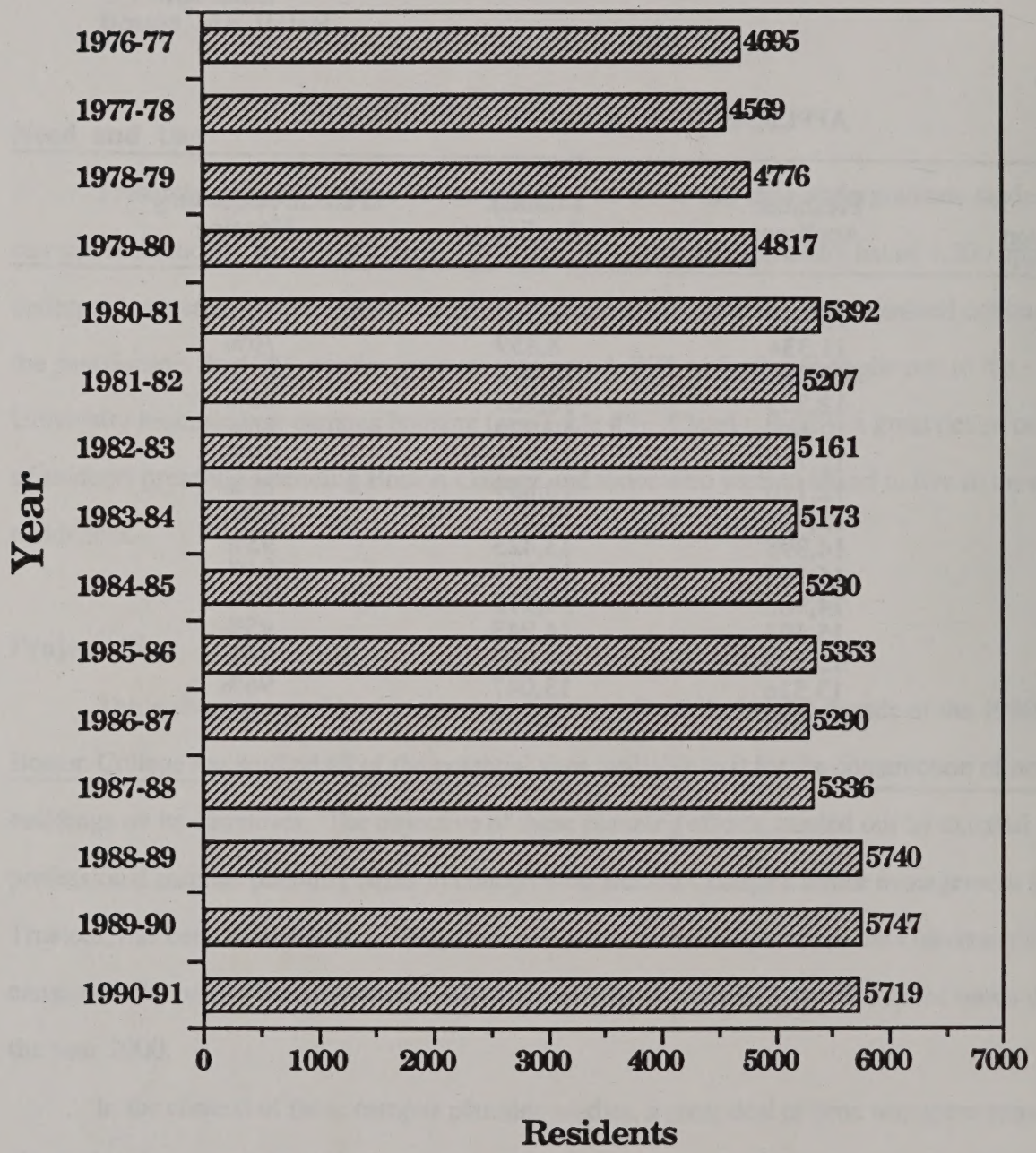
TABLE 5

APPLICANTS REQUESTING DORMITORIES

Year of Application	Freshmen Applicants	Resident Applicants	Percent Requesting Housing
1976	10,848	8,210	76%
1977	11,334	8,859	76%
1978	12,396	10,414	84%
1979	12,505	10,765	86%
1980	12,640	10,929	86%
1981	12,748	11,378	89%
1982	12,110	10,859	89%
1983	12,414	11,223	90%
1984	14,398	13,423	93%
1985	16,163	15,242	94%
1986	14,986	14,315	95%
1987	15,593	14,943	95%
1988	15,523	14,909	96%
1989	13,526	13,047	96%
1990	12,403	11,894	96%

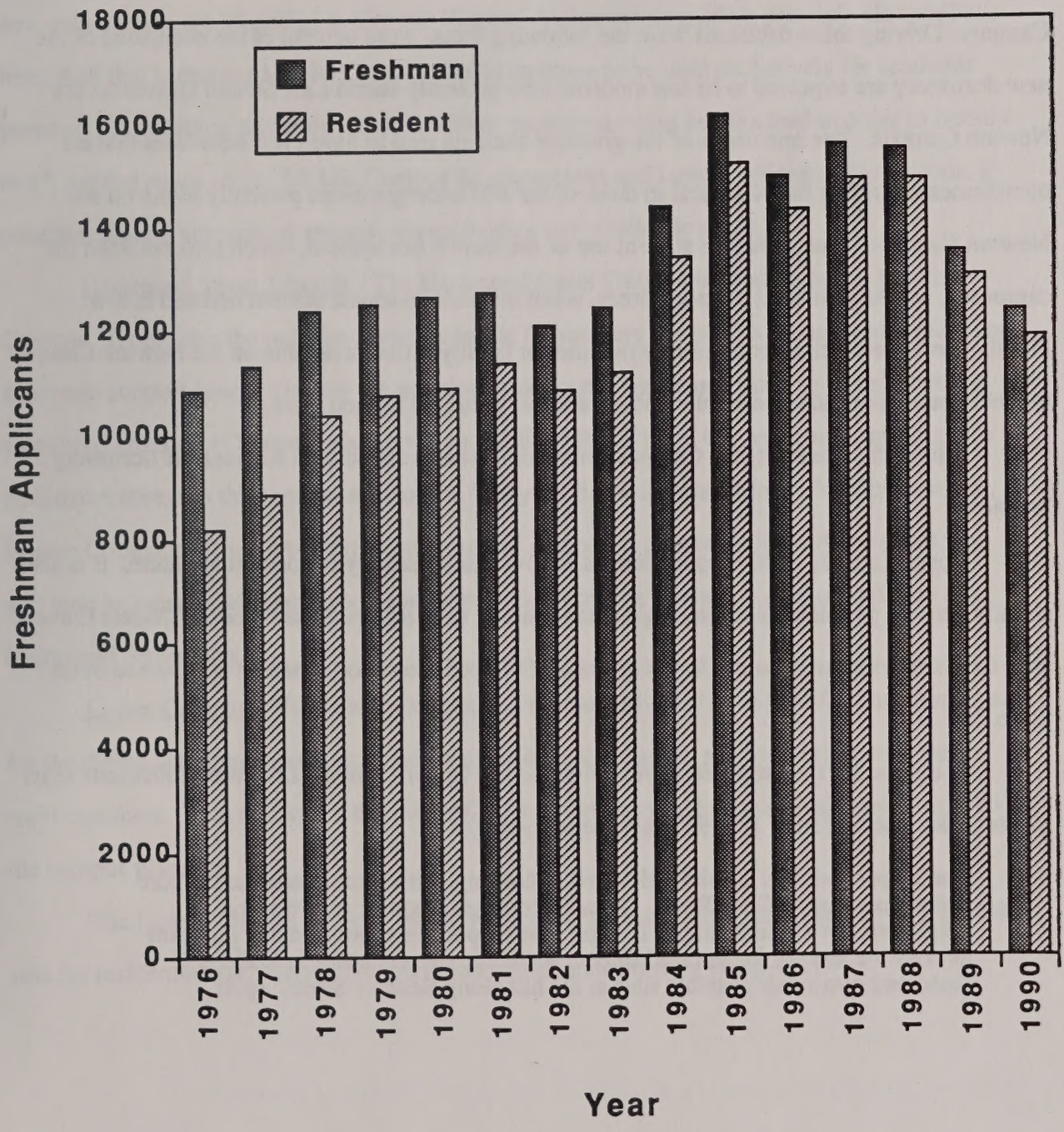
GRAPH #2

STUDENTS IN DORMITORIES



GRAPH #3

Freshman Applicants Requesting Housing



will not provide additional dormitory spaces, but rather will be used to replace the Modular Housing units (507 beds) presently located on the Lower Campus.

After considerable deliberation, it was decided to locate the first new dormitory for graduate students on the Newton Campus, and the second for undergraduates on the Chestnut Hill Lower Campus. Driving these decisions were the following facts. Fifty percent of the occupants of the new dormitory are expected to be law students who presently attend Law School classes on the Newton Campus. The remainder of the graduate students tend to have class schedules that are complementary rather than identical to those of the 800 undergraduates presently living on the Newton Campus. Thus graduate student use of the shuttle bus system, which runs between the campuses, will tend to be at off-peak times, when the undergraduate student demand is low. Finally, there are no classroom, library facilities or faculty offices available on the Newton Campus to meet academic needs of even the undergraduates presently housed there.

Within the Chestnut Hill Campus a number of sites were studied for possible dormitory locations.

Upper Campus - The Upper Campus is now almost entirely residential in nature. It is also already densely populated with undergraduate resident students. And, as noted in Chapter Eleven, save for a site with the potential for a very small (100 bed) dormitory, there is no space to build there.

In discussing the proposed development of the Upper Campus, Livermore, Edwards in its Master Plan report of May 13, 1987 says the following:

> The Upper Campus is chiefly devoted to housing, with some academic support functions along College Road. Given its location amongst its residential neighbors, the Upper Campus is at present supporting about as much program as possible, except for some additional academic support space at College Road and two small possible sites at the hill along Beacon Street. (p.4)

Middle Campus - The academic heart and center of the University is its Middle Campus. Just about all teaching, classroom learning, research, study and academic support services are located here. There is very little room for new buildings. The limited sites which might support new construction are identified in Chapter Eleven. An important guiding principle also applies here. And that is that the Middle Campus should continue to be used exclusively for academic purposes. A corollary principle is that academic support services be relocated in order to free-up much needed space on the Middle Campus for classrooms and faculty offices and to provide, if possible, limited amounts of space to accommodate new academic needs.

Hammond Street Triangle - The Hammond Street Triangle is adjacent to the Middle Campus. It provides the only long-term potential for meeting needs both for academic space and academic support space. Despite the addition of new crosswalks and crossing barrels and a signalized crossing at Beacon, Hammond and College Road, there is a problem in gaining safe pedestrian access to this area because of the heavy traffic on Beacon Street. For these reasons, Boston College does not envision developing this campus as another area for dormitories, and will tend to locate academic support functions which generate low levels of foot traffic on the Hammond Street sites.

Lower Campus - The Lower Campus at Chestnut Hill is already used for dormitories, and for the dining and recreational facilities which provide the support services for the students in residence there. Map #4 depicts the Lower Campus dormitory and recreational zones specified by the campus planners.

The Lower Campus is zoned on the south side for recreational activities and on the north side for residential use. This is the identified site for new housing (Map #12).

Alternatives Considered

SITE C1 - The dormitory programmed for Site C1 was designed to hold 600 beds. The building area is estimated at about 200,000 square feet The structure would be a combination of six and eight levels.

SITE C2 - The dormitory programmed for Site C2 is designed to hold 380 beds. The building area is estimated at about 115,000 square feet. The structure will be a combination of six levels . It is the design intent that the new dormitory structures will be lower than Walsh and Edmonds. The north face of the structure on C2 will be 430 feet from Commonwealth Avenue. At the request of the community, the structure has been moved 150 feet west toward the Middle Campus.
from its original presentation

As part of the project, modulars containing 120 beds will be removed. Thus this site will bring a net 260 new beds.

SITE C3 - The dormitory proposed on Site C3 is programmed for 354 beds with 110,000 square feet. It is designed to be six levels with a height of 65 feet. This building will not be visible from Commonwealth Avenue.

SITE C4 - The dormitory sited on C-4 will house 326 students and contain six stories. It will be 44-55 feet and contain 122,000 square feet.

SITE C5 - The campus planning firm of Livermore, Edwards recommended in 1987 the More Hall site as a possible site for a multi-story dormitory.

SITE C6 -During various meetings with campus planners, Site C6 has been suggested for a small dormitory of 150 to 200 beds. Again, this site by itself will not accommodate the 600-800 bed dormitory under discussion here. Like Site C5, it may provide a partial solution.

Site Selected

Following careful consideration of several sites for new undergraduate housing, the University administration, with the support of the Board of Trustees, has selected Sites C2 and C3 along Lower Campus Road that it believes best serves the needs for undergraduate housing. The project would contain approximately 225,000 square feet of space and would house approximately 754 undergraduate students. The site is in the proposed Boston College institutional subdistrict.

The project will include a common area that could function as a non-alcoholic club. Students could come to listen to comedians or watch "Monday Night Football."

An integral part of the project would be the construction of a dining facility adjacent to the Robsham Theater Arts Center, designed with 51,000 square feet of programming that would include late evening food service of pizza and pasta. This is the type of programming that is consistent with Boston College's expressed desire to provide attractive opportunities for students to remain on campus.

As part of the project, an addition of 6,000 square feet will be made to the back of Robsham Theatre. This will provide extra classroom and office space.

Boston College has previously discussed with the community the possiblity of a third dormitory on site C. Boston College is not currently seeking Master Plan approval of such dormitory. If when Boston College seeks to construct the third dormitory, Boston College shall notify the Boston Redevelopment Authority pursuant to Article 51 of the Zoning Code and shall proceed through the zoning processes contemplated by the Master Plan provisions of Article 51.

Parking

The project is intended to house sophomore students who are not allowed to bring automobiles to campus. Parking alternatives are presently being developed with traffic engineers and as part of the Transportation Master Plan. Limiting the number of parking passes issued and using more satellite parking are being considered.

A new program is being developed with the "T" to encourage use of public transporation by the Boston College community.

Cost

The cost of the entire project is estimated to be approximately $43 million dollars.

Boston College proposes to develop the entrance area adjacent to St. Ignatius Church and to work with members of the community, the City of Boston, church leaders and the MDC to provide aesthetic improvements to the area that are consistent with the desires of the residential community and Boston College.

Timetable

The timetable for the development would occur in two phases:

Phase I (734 beds) Removal of 120 modular beds (Net 614)	Construction starts March 1992 Occupancy: September 1993

CHAPTER FIVE
OTHER PROPERTIES - BOSTON

1380 SOLDIERS FIELD ROAD

Architect

Livermore, Edwards and Associates
Somerset Court
281 Winter Street
Waltham, MA 02154

Need and Use

Boston College has purchased property at 1380 Soldiers Field Road in Allston (Map #1).

Planned use is for office and warehouse space.

Office Space

The below listed offices are typical of those which will be located at this site.

Buildings and Grounds Department
Director
Associate Director
Assistant Director, Plant Services
Assistant Director, Technical
Assistant Director, Auxiliary Services
Assistant Director, Planning Department
Work Order Coordinator
Manager, Office Services
Secretarial Offices
Administrative Coordinator
Architectural Assistant, Planning
Energy Manager
Drafter/Designers
Construction Project Managers
Architecture Project Managers
Mechanical Engineer
Director, Bureau of Conferences
Function Coordinators, Bureau of Conferences

Dining Department
Director
Associate Director, Operations
Associate Director, Business Systems
Asst. Director, Purchasing & Nutrition
Asst. Director, Employee Relations, Training
Assistant Director, Catering
Administrative Dietitian
Accounting Manager
Business Manager
Executive Chef
Cash Receivable Assistant
Reception Area
Business Office Assistant
Accounts Payable Assistant
Administrative Secretary
Secretary II

Taxes

Boston College affirms its tax-exempt status, but intends to enter into an agreement with the City, whereby the University will make a contribution to the City for the services it consumes. The contribution will be in the amount suggested by the Mayor's Tax Exempt Steering Committee, 25% of the tax paid by commercial entities.

Warehouse Space

Approximately 20,000 to 25,000 sq. ft. of this building will be utilized to meet permanent, temporary and seasonal storage needs. A listing of typical goods, equipment and materials to be stored in this site is noted in Table #6. Under no circumstances will Boston College consider the warehousing of materials deemed hazardous on this site.

At the present time much of this material is stored in twenty-five leased trailers parked on the Lower Campus. The transfer of these goods and materials to a storage area at 1380 Soldiers Field Road will permit the elimination of these storage trailers and the recovery of the forty-seven Lower Campus parking spaces which the trailers now occupy.

Project Site

The building fronts on Soldiers Field Road, adjacent to the M.D.C. Police Station. It is also directly accessible from 475 Western Avenue. The building lot is 75,638 square feet and provides parking spaces for 85 vehicles. Zoning is Light Industry, "M1".

Square Footage and Height

The existing building contains an area of 46,669 square feet. It is one and two stories high (23 feet) and was built in 1940 with three or more additions constructed between 1957 and 1959. It originally housed the office and manufacturing and distribution facilities for the International Shoe Company.

Parking and Traffic

The building at the time of acquisition was occupied with professional and technical staff and office workers. It also contained a sound stage and requisite support personnel. At times of shooting and producing television shows and movie productions, additional personnel and equipment were brought to this location.

It is anticipated that Boston College's use of this property will be considerably less intensive, since most employees who will commute there will adhere to Monday through Friday, 8:30 A.M. to 4:30 P.M. work schedule.

On site parking at 85 spaces is more than sufficient to accommodate Boston College employees and a small number of vans and light delivery vehicles.

Timetable

In July, 1991, Boston College decided to explore the possibility of selling 1380 Soldiers Field Road. If Boston College can recoup its financial commitment and find alternate space for warehousing and office space, the building will be sold. If the building is not sold, Boston College will begin renovation to the building. First among the renovation priorities will be work required to develop building mechanical, electrical, life-safety and access systems and to bring them up to current building and handicap code requirements.

Boston College will update the Committee on the status of 1380 Soldiers Field Road in the yearly update.

TABLE 6

OFF-CAMPUS STORAGE
BY CATEGORY

STORAGE GROUP	STORAGE & HANDLING CHARACTERISTICS	EST. STORAGE AREA IN SQ. FT.
Furniture, unused equipment, store fixtures, theater set pieces and equipment	Conventional warehousing Location control Security Occasional access Pest control	8,950
Files & Records	Climate controlled storage Location control Pest-free Records management system Method of access Security Possible area for microfilming	1,275
Supplies	Conventional warehousing Frequent access Inventory tracking & control	2,300
Off Season snow removal & grounds equipment, trades equipment	Floor space	4,806
Library Books	Shelving storage Climate control Pest-free Processing space System link to library computer	1,000
Publications/printed matter	Conventional warehousing Shelving or rack storage Frequent access Inventory control	460
Carpet	Racked storage - heavy duty Handling space Special lift truck Clean, dry, pest-free Possible protection from sunlight	1,152
Bookstore Inventory	Security	2,000
Total Storage Area Required Non-Racked Floor Space		21,943
Total Storage Area Required Racked Storage[1]		15,000 - 17,000

[1] Includes circulation, staging and aisles

ST. CLEMENT'S HALL

Starting in January 1991, Boston College began leasing part of St. Clement's Hall for a term of 10 years. The amount of square footage presently leased is 28,000 square feet.

Within this 10 year time frame, the University will not undertake functions or activities within St. Clement's building which will generate student activity or traffic, including all direct academic or student use.

The University will utilize the building for professional office and faculty research space of a non-scientific nature which will generate no hazardous waste or any effects of biomedical or other types of medical research.

The University shall not conduct intercollegiate athletic programs on the property.

If the University is offered any opportunity to expand its presence on Seminary property beyond St. Clement's Hall, it agrees that it will do so through the process, as defined within the Allston-Brighton zoning article, of amending its Master Plan to include Seminary property, with such process including full community review.

If at any time during the tenancy of the property, the City of Boston determines that adequate parking cannot be provided according to the City of Boston parking standards, the University shall provide mini-bus or van service along Commonwealth Avenue and Foster Street from campus parking facilities

235 NORTH BEACON STREET

Boston College is currently occupying 41,695 square feet of space on two floors at 235 North Beacon Street (Map #1). This temporary space will be used for storage through January 1, 1992. If space does not become available, the lease may be extended for one more year. The building at 1380 Soldiers Field Road is not yet available and efforts to sell this property have not been successful. If we occupy it, it will take time to renovate and prepare for office and warehouse use. If we do sell, we have to find new warehouse and office space.

CHAPTER SIX
PROPOSED PROJECTS - CHESTNUT HILL

Chestnut Hill - Newton

Upper Campus

The Upper Campus is chiefly devoted to housing, with some academic functions along College Road (Map #4). Given its location amongst its residential neighbors, the Upper Campus is at present supporting about as much programming as possible, except for some additional academic support space at College Road and one small possible residence hall site along Beacon Street. It is the opinion of Livermore, Edwards & Associates that College Road's present and future structures should be designed to maintain the character of the present street scape. The campus edge formed by College Road and the adjacent two or three level structures, provide an important transition buffer between Boston College and the adjacent residential community. Future development on College Road should be limited to academic support functions.

Middle Campus

The Middle Campus is the academic heart of the Boston College campus. The architectural style of the Middle Campus forms a strong unit with sensitive and formal placement of buildings, landscape and open space. Therefore, key open spaces on this campus should be protected at all cost. Whenever possible, cars and paved areas should be reduced and the green, landscaped open space increased.

It is suggested that all non-academic and academic support programs located in Middle Campus be relocated to the College Road area or the Hammond Street Triangle to provide Boston College with as many options as possible for academic expansion within the existing Middle Campus buildings. The following program changes and site development options are planned within the next ten years.

Campion Hall Addition and Renovation. (Map #13, Site F)

Architect

Ellenzweig Associates, Inc.
1280 Massachusetts Avenue
Cambridge, Massachusetts 02138

Need and Use

Campion Hall, located on Beacon Street just west of the Chemistry Building, is the home of the School of Education. The building contains offices for the Deans, faculty and the University Counseling Services. It also houses University Audio Visual Services, the Campus School for Multi-handicapped Children and the Educational Resource Center.

The Campus School is in the building's gymnasium wing; this space was totally renovated for its staff and Special Needs students in 1988. Construction has been completed and is a 43,000 gross square foot addition. The driving forces behind the addition are twofold. The School of Education faculty had been spread over five locations in three buildings . One objective is to bring these faculty together in one location.

Secondly, there is a long identified need to provide more and better space for the Educational Resource Center. This Center acts as a specialized library and instructional facility for Boston College students studying to teach in primary and secondary grades. The shortcomings of the existing facility were cause for special concern in the most recent accreditations of the School of Education.

It was also necessary to upgrade the 35 year old offices and classrooms in the building as well as to modernize mechanical, electrical and communication services and to bring life-safety and access systems up to current standards. Table #7 in the Chapter details the program for the combined addition and renovation projects.

Project Site

Within the present site and with an extension to the southeast.

Square Footage and Height

An addition of 43,000 square feet with a height equal to that of the existing structure has been completed. The renovation of the existing 44,000 square feet of existing space has also been completed.

Parking and Traffic

School of Education faculty and staff to be located in this building are already on campus and are presently housed in Campion, McGuinn, the Campus School or the Service Building. There will be no additional traffic or parking requirements.

Timetable

Construction has been completed.

TABLE #7

CAMPION HALL

SPACE PROGRAM SUMMARY

SCHOOL OF EDUCATON	30,561 NUSF includes faculty and includes faculty and administrative offices, word processing center, support and common areas.
EDUCATIONAL RESOURCE CENTER	6,946 NUSF Includes collection space, reader areas, ERC classroom, administrative and support space.
REGISTRAR	8,154 NUSF Includes 11 classrooms.
UNIVERSITY COUNSELING	804 NUSF (NO CHANGE) Includes TV studio, recording, editing facilities as well as administrative and support space.
CAMPUS SCHOOL	7,2270 NUSF (NO CHANGE) Includes classrooms, physical therapy, faculty, administrative and support space.

Devlin Hall Renovation (Map#13, Site D)

Architect

Royston Daley
Linea 5, Inc.
955 Massachusetts Avenue
Cambridge, MA 02139

Need and Use

Some of the most notable examples of collegiate Gothic architecture in the Greater Boston area, if not the entire east coast, are located on the Boston College campus. Boston College is keenly aware of the historic value of their buildings to the community at large and of its responsibility to preserve them. The multimillion dollar renovations of Gasson Hall in 1975 and the Bapst/Burns Library in 1988 are most notable. Notable, too, is the extraordinary care taken in the planning of these renovations. In the case of Bapst Library, for example, not only was a noted Boston architect selected, but the University employed Douglas Shand-Tucci, an architectural historian, to assist in planning and carrying out a renovation that would truly restore this library to its original grand state.

Devlin Hall is among the original distinguished Gothic buildings designed by Maginnis-Walsh. It was vacated by the Chemistry department in September 1991 upon completion of the Chemistry Building. The building itself is in need of a total renovation in order to retrofit chemistry teaching and research laboratories, to modernize mechanical and electrical systems, to meet today's codes for both life-safety systems and accessibility for the physically challenged. In addition, the roof must be replaced and extensive repairs must be made to stone work and limestone trim on the building's exterior.

It is Boston College's intention to use the same care in restoring this fine building as it has its sister buildings, so that all who care about the preservation of truly notable buildings because of their history and architecture will share our excitement and celebration when the work is finally completed and the building reopened in January 1993.

The Geology Department , which is presently located in the building, will be relocated for the duration of the renovations and return to new faculty offices, teaching and research labs and classroom space.

The Fine Arts Department, located on the Newton Campus since 1975 because of a lack of space on the Chestnut Hill Campus, will also have faculty offices, classrooms and drawing studios located in Devlin Hall.

The Boston College Museum and Gallery, presently located in Devlin, will remain with expanded gallery and storage space.

Finally, the Admissions Office will be relocated from Lyons Hall and moved into new office space with a visitor's reception area in the building.

The remainder of the building will be used for general purpose University classrooms. Table #8 in this Chapter details the program for the renovated Devlin Hall.

Project Site

Existing site.

Square Footage and Height

Existing

Parking and Traffic

There are no plans for additional faculty, staff or students Student traffic to the Newton Campus to take art classes will be eliminated, as will Fine Art faculty traffic from the Newton Campus to the Chestnut Hill Campus to offer art classes there.

Timetable

The Devlin project has begun. Restoration of the stone exterior commenced in the spring 1991, interior renovation is following beginning in the fall 1991. Completion is expected by January 1993 with occupancy anticipated at that time.

TABLE #8

SUMMARY

DEVLIN HALL SPACE PROGRAM

ART MUSEUM	4,300 NUSF Includes Gallery space for exhibits and the University Collection as well as office and support space.
FINE ARTS	13,650 NUSF Includes faculty and administrative offices, slide library and studios for drawing, painting, film and photography.
GEOLOGY	15,285 NUSF Includes faculty and administrative offices, research and teaching laboratories, computer facility and rock preparation/sawing/crushing room.
REGISTRAR	9,800 NUSF Includes the main lecture hall plus eight (8) classrooms
UNDERGRADUATE ADMISSION	9,140 NUSF Includes a visitors center, interview and conference rooms, an information/presentation room, offices and support space.

Source: Office of Space Planning and Utilization

Fulton Hall Renovation and Addition (Map #13-SITE E)

Architect

P.B. Svigals & Associates
5 Science Park
New Haven, CT 06511

Need and Use

Fulton Hall houses the Wallace E. Carrol School of Management, the undergraduate program, the M.B.A., MS. in Finance and the Ph.D. programs of the Graduate School of Management, the Evening and Summer Colleges and a number of classrooms. Like all Middle Campus academic buildings, space for faculty, classrooms, and Deans is woefully inadequate. The proposed building program, including both the space in the existing building and in the planned additions, is detailed in Table #9 in this chapter

Project Site

Existing Site

Square Footage and Height

In order to conserve Middle Campus open space, the architect has developed a design which will add one floor to the existing building and three floors above the two classroom pods which now extend from the rear of the building. In addition to providing much needed space, this design considerably improves the esthetics of the formal quadrangle to the north of Fulton Hall. By raising the height of the building and providing a sloped roof the architect has allowed this building to join its peers, Gasson, Devlin and Lyons as a distinguished equal in the formation of the quadrangle.

The combined fifth floor and rear additions will yield 21,355 net usable square feet. The renovation of the existing space encompasses 53,104 net usable square feet and includes structural changes to carry the addition, as well as renovations to improve classroom and office space and to accommodate seismic, life-safety and access codes; and, finally, to provide for new electrical,

mechanical and voice and data communication systems. The new height of the building will be approximately 83 feet.

Timetable

An 18 to 24 month construction period is envisioned. Assuming final approval by the Board of Trustees, construction could commence as early as spring 1993.

TABLE #9

FULTON HALL

SPACE PROGRAM SUMMARY

SCHOOL OF MANAGEMENT	45,021 NUSF Includes administrative and faculty offices, support space and student services space (i.e., lounge, conference rooms and offices) for MBA, Undergraduate, Honors and Ph.D./Graduate students.
EVENING COLLEGE/ SUMMER SESSION	5,549 NUSF Includes administrative and faculty offices, conference rooms and lounge.
REGISTRAR	21,906 NUSF Includes main lecture hall plus seventeen (17) classrooms.
UNIVERSITY COUNSELING	829 NUSF (NO CHANGE) Includes administrative and support offices
INFORMATION TECHNOLOGY	1,154 NUSF (NO CHANGE) Includes information processing support space for undergraduate computer science department.

Source: Office of Space Planning and Utilization

CONNOLLY AND MURRAY CARRIAGE HOUSE RENOVATION - Hammond Street Campus
(Map #13, Sites G & H)

Architect

Boston College Planning Department

Need and Use

These carriage houses until this year have been used for general purpose storage. Both are in relatively poor condition, although the exterior of the Connolly Carriage House was totally restored in 1990.

In keeping with the general recommendations by Livermore, Edwards, & Associates, it is the University's plan to convert these spaces to studios for the Fine Arts Department. This will also enable the achievement of a long term academic goal to bring the Art Department from the Newton Campus to the Chestnut Hill Campus. It should be noted that this is the only department in the College of Arts and Sciences not now located on the Middle Campus.

Site

Existing Sites. Connolly and Murray Carriage Houses are interior to the Hammond Street Campus, on the properties of Connolly and Murray Houses. See Campus Map #13.

Square Footage and Height

There are 4,330 gross square feet in the Connolly Carriage House and 1,686 gross square feet at the Murray Carriage House. The planned retrofit and renovations will take place within the existing envelopes of both buildings. Therefore, there will be no change in square footage or in building heights.

Parking and Traffic

At the request of the Chestnut Hill Association, the University has agreed not to build the proposed 25 additional parking spaces. Extra parking at the carriage houses will be prohibited.

Timetable

Construction began during summer 1991. Completion is scheduled for November of 1991 for Murray and February 1991 for Connolly.

CHAPTER SEVEN
PROPOSED PROJECTS - NEWTON CAMPUS

There are several sites that could be developed at the Newton Campus. Because of its remote location, the development of this campus will be focused on a group of students who require extensive support or physical contact with the main campus. During the time within the range of this Master Plan, the development proposed for this campus consists of a graduate resident center.

Graduate Resident Center (Map #14 - SITE I)

Architect

Earl R. Flansburgh & Associates, Inc.
77 North Washington Street
Boston, MA 02114

Need and Use

Boston college offers no graduate housing. To continue to attract a high caliber of student and provide housing, a 336 bed center with two connected buildings has been proposed. The facility will consist of four, three, two and one bedroom suites and studios. and will have five stories. There will be several rooms that will provide ancillary services, such as laundry room, study rooms, and a student lounge.

Project Site

Five potential sites were evaluated:

- Site I1, on the eastern-most edge behind the Quonset Hut
- Site I2, behind the Alumni House
- Site I3, in the back of the campus, in the parking lot
- Site I4, beside Mill Street on the western edge of the campus.
- Site I5, behind Barat House on the hill

The Hillside Site has been selected because of its neighborhood acceptability, its proximity to the Law School and the fact that it is located on under-utilized land.

Square Footage and Height

150,000 square feet, five stories high.

Parking and Traffic

Vanness, Hagen and Bustlin has done a study to measure the traffic impact of a Graduate Center. They report that with the proper signage, the impact should be negligible.

There will be parking provided for 101 extra cars.

Timetable

Construction has been deferred on this project until 1994.

Barry Pavilion/Kenny-Cottle Renovation, Newton Campus (Map #14, SITE W)

Architect

Not selected.

Need and Use

The Barry Pavilion is presently occupied by the Fine Arts Department. On the completion of the Devlin Hall renovation scheduled for January 1993, this department will move to the Chestnut Hill Campus. The plan then is to retrofit and renovate the Barry Pavilion and move various Law School activities there.

A number of these activities are now located in the basement of the Kenny-Cottle Law Library. This will in turn allow the Law Library to add stacks and work space in that area.

The dining facility will be renovated during this project.

Site

Existing buildings.

Square Feet and Height

The Barry Pavilion building contains 39,357 square feet.

The Kenny Cottle Library contains 70,620 square feet.

In both cases the existing building height remains the same.

Parking and Traffic

The purpose of these renovations is to relieve existing office congestion and to provide stack spaces for the collections of the growing Law Library. No additional need for parking is anticipated.

Timetable

It is anticipated that the renovation will commence during calendar year 1993.

CHAPTER EIGHT
LONG TERM PROJECTS (1996-2001)

Beyond the projects noted above, the University has attempted to identify space needs and the need to replace aging facilities until the year 2001. These needs have been roughly converted into building projects. The overall campus planning effort includes discussions regarding possible locations of future buildings and open spaces. While this is speculation at this point in time, it acknowledges space needs and attempts to assure that the near term projects are properly sited. It also brings concepts of the potential projects to the attention of the community.

Possible additional Building Projects are noted below: (Map #13)

C. Lower Campus Dormitory (C sites, Map #12)
K. Replacement of Flynn Recreation Complex
L. New soccer-size playing field
M. Reorganization of public open space and pedestrian movement
N. Academic Building
O. 200 Bed Dormitory
P. More Hall addition
Q. McElroy
R. College Road
S, T, U. Terratecture Opportunities
V. Hillside
W. Barry Pavilion/Kenny-Cottle Library (Map #14)

Lower Campus Dormitory (Map 12, C Sites)

The need to house additional students on campus has been expressed by neighbors, administrators, parents and current and potential students.

Construction of a 500 bed suite-style dormitory complex is proposed. This project would displace the remaining modular apartments. The project is proposed to begin in 1995.

New Recreation Complex (Map #13, Site K)

The Flynn Recreation Complex, built in 1970, is used intensively and shows this wear. It is not of high quality construction and normal maintenance costs are accelerating. A further consideration is its inefficient use of the land. It is expected that by the year 2000 a decision will have to be made to replace this structure. With the construction of the new parking garage/campus

center on Site A-2, a new recreation complex could be constructed on Site A-3. The site phase fits best with the existing recreation complex and other construction on the Lower Campus. The new complex would be elevated to allow vehicular traffic and parking below.

Lower Campus Open Space Development (Map #13, Sites M, O, & L)

The Lower Campus is currently organized by the ring roads which encircle it and the influence of the stadium complex which has been oriented differently from that of the remaining campus. This has tended to create a visual disorder of building and open space elements.

This report recommends that the recreational open space program elements be located so as to provide major open spaces around which the new building elements may be organized.

In one scheme these elements are located on an axis relating to the Middle Campus, while another scheme would show the open space relating to the deviant grid set up by the skewed stadium element.

In developing the open space on the Lower Campus, Boston College will continue to improve its gateways to Commonwealth Avenue.

Academic Site (Map #13, Site N)

East of the new science building lies a small site that will be available for academic space. It is at the entrance to the parking garage on Beacon Street so the height of this building must be sensitive to its surroundings.

200 Bed Dormitory (Map #13, Site O)

Site O is a possible dormitory site that could provide an increase of about 200 beds. This site will be developed last because it has a strong impact on the campus entry and open space system.

More Hall Addition and Renovation (Map #12, Site C-6)

Architect

Livermore, Edwards & Associates
Somerset Court
281 Winter Street
Waltham, MA 02154

Need and Use

There is a crucial need for more office space on campus.

Program

Offices for administrative departments will be housed in this space.

Description

An addition of 50,000 gross square feet of office space to the rear of St. Thomas More Hall is proposed.

Project Site

More Hall is located on a site whose current layout allows additional programming.

Square Footage and Height

The renovation is proposed at 50,000 gross square feet.

Timetable

Undetermined

Middle Campus McElroy Commons Renovation (Map #13, Site Q)

Architect

To be selected.

Need and Use

McElroy was built in 1960 when there were five extracurricular clubs. Now there are over one hundred thirty-three clubs and academic functions which place extensive demands on the

original design of the building. McElroy will be reprogrammed to upgrade bookstore and dining spaces. Various club and chaplaincy spaces will also be improved.

Description

Major renovation of approximately 75,000 square feet to improve circulation and usability of existing space. Project scope also includes the upgrade of building systems and extensive revision of Dining Service and Bookstore areas.

Timetable

This project is expected to start in September 1996 and finish in August 1997.

College Road Site (Map #13, Site R)

A site exists on the east side of College Road, just north of McElroy Commons. Because the Campus Green and College Road have a grade change of 15 to 18 feet, a four or five level building could be built on this site that would respect the scale of College Road and the Middle Campus.

Considering the location of this site, the program considered for this structure could be a combination of any of the following:

- Parking for up to 210 cars
- Academic Space
- Administrative Space

Terratecture (Underground) Opportunities (Map #13, Sites S, T, V)

Three sites exist at locations S, T and V for below grade structures. Each site could support academic expansion of about 10,000 square feet each on one level. These might be particularly suitable for configuration of classrooms or lecture halls.

Hillside (Map #13, Site V)

There is a small site between O'Neill Library and St. Mary's Hall that could be programmed with either academic functions or dormitories because it lies on the line between the Middle and Lower Campuses. It is the opinion of Livermore, Edwards & Associates that this site should not be developed until all other sites are exhausted. This site should be developed now as part of the Boston College open space system. Because of its location between the Lower and Middle Campus it is an important transition space for the campus, both in terms of use and providing a gentle grade of change.

CHAPTER NINE
COMMUNITY BENEFITS

It has become important in today's world to forge partnerships between communities and institutions. Boston College has attempted to build an extensive program of working support for our host communities. Our efforts have included reaching out to the youth of the City of Boston with educational collaboratives, job opportunities and scholarship aid, management training, to resource sharing, and technological and educational collaboration.

As of July 1991, Boston College employed 747 Boston residents. Boston College has recently implemented a special employment policy for Brighton/Allston residents. The language for the policy reads:

> Boston College has implemented an employment policy for Brighton/Allston residents to provide employment opportunities to residents of the Brighton/Allston area of the City of Boston. Boston College will recruit individuals who are qualified for existing positions through the Office of Human Resources and job postings located at various locations in the Brighton/Allston community as determined by area civic groups.
>
> Boston College is in compliance with the various laws and regulations requiring equal opportunity and affirmative action in employment, such as Title VII of the Civil Rights Act and Federal Executive Order #112246. Boston College is also in compliance with the Boston Residents Jobs Policy Ordinance of 1983.

The procedure for a community member applying for a position at Boston College is:

1) Boston College will send to identified community groups the official job listings of the College

2) All applicants will apply directly to the Department of Human Resources and send a copy of the letter and resume to the Office of Community Affairs, 116 College Road, Chestnut Hill, MA 02167

3) The Office of Community Affairs will forward the letter to the Director of Employee Relations, Department of Human Resources who will maintain a special list for Brighton/Allston residents

Boston College presently hires off-duty Boston Police officers to patrol the Cleveland Circle and Lake Street areas on selected Friday and Saturday events. These areas have been

identified by community members as being areas populated by students. Boston College will continue to work with the community on the status of the effectiveness of these patrols.

Boston College is very sympathetic to the financial plight of the City of Boston. Boston College will work with the City Assessor's Office to determine future payments.

Boston College has provided to Brighton/Allston residents financial aid awards in the following areas:

	1986-87	1987-88	1988-89	1989-90	1990-91
Scholarships & Awards	$244,553 (54)	$243,718 (48)	$264,434 (43)	$330,886 (49)	$379,645 (51)
Total Financial Aid	$521,541 (66)	$474,180 (56)	$489,548 (53)	$596,217 (62)	$601,489 (61)

As a result of negotiations associated with establishing The Master Plan, Boston College agrees to dedicate ten percent of the 1990-91 spending level in additional tuition remission scholarship and grant assistance to residents of Allston and Brighton.

Boston College would seek to award this additional gift aid based on academic merit within need up to a maximum of full tuition. Only applicants who meet Boston College's admission standards are eligible. In order to help as many Allston and Brighton residents as possible, available tuition assistance will be distrbuted as part of a package of loans, work/study, and other sources of gift aid.

To establish their eligibility, Boston College agrees to encourage residents to make application to the University through Allston and Brighton high schools, and by personal letter to prospective students and their families who express an interest in attending Boston College.

Applicants must complete all required forms within published admission and financial aid deadlines.

Boston College has established an Off-Campus Council to address the issues of students living off campus. The Task Force is asked to name members of its choice to serve on this on-going committee.

The neighbors are also asked to name members to meet to discuss the Transportation Master Plan being developed by Rizzo Associates.

Boston College's Economic Impact on Neighboring Communities

Boston College as Employer

Boston College has 2,818 employees (as of July 1990)
747 are Boston residents

Budgeted total compensation for employees: $91.4 million
(academic year June 1989 through May 1990)

Boston College as Purchaser

Total expenditures by the University in Boston
$17,046,821
University expenditures in Boston: $17,046,821
University expenditures in Newton: $ 9,204,919

Boston College Employees as Purchasers

Employee purchases in Boston: $17.3 million

Boston College Students as Purchasers

Student purchases in Boston: $57.5 million

Boston College Visitors as Purchasers

Visitors' purchases in Boston: $33 million

Direct Employment Impact of Students, Visitors, and Employees

(this is direct impact and does not include the employment effect on manufacturing concerns in Boston and Newton)
Boston: 1346 jobs

Methodology of Impact Study

The spending and employment impacts are estimates based on 1988-89 figures of the direct spending of students, visitors and employees; and the direct employment due to this spending. No multipliers are used in the analysis and no indirect impacts are included, as these are difficult to estimate and would be expected to be small in magnitude.

Spending is estimated from surveys of students and employees conducted specifically for this study. Respondents were asked to estimate their spending by broad category in Newton and Boston.

Employment impacts are derived from the Multi-Regional Input-Output (MRIO) model, a component of Boston College's Multi-Regional Policy Impact Simulation model. The model applies employment coefficients to the spending estimates in order to estimate the first-round impact on employment. Generally, the employment impact includes only those people who first "touch" the money spent by students, visitors and employees, such as store clerks, waiters, gas station attendants, taxi drivers, etc.

Boston College as a Source of Financial Aid to Local Students

Boston College has maintained a strong commitment to providing educational opportunity for promising students at the undergraduate and graduate levels who might not possess the means to finance higher education. This commitment is especially true for the people who live in the city of the university's founding. Some years ago, Boston College's Jesuit Community established a scholarship fund for deserving students from the metropolitan Boston area, and in 1986 the university established the Thomas P. O'Neill Jr. Scholarship Fund, which awards funds to students from the former Speaker's Eighth Congressional District. More recently, through The Campaign for Boston College, the Balfour Foundation, the General Electric Foundation, the Capital Cities Foundation and others have contributed large gifts to Boston College to support scholarship programs for people of color. For many years, Boston College has operated the Options Through Education Program, which provides economically and educationally disadvantaged students the opportunity to get a head start on their collegiate experience during the summer prior to their freshman year. Four years ago, Boston College established a graduate fellowship program directed at people of color by which full-tuition grants and annual stipends of up to $8,000 are awarded annually. In addition, Boston College established the Teacher Education Award for Minorities Scholarship, which will be used to help minorities enter the teaching professions by providing tuition remission for full- or part-time study in graduate programs leading to the teacher certification. More recently, a Carol A. DeMaiti Scholarship of $2,500 per year for up to four years, in memory of the late alumna, was established for a resident of Boston with preference given to a student from Mission Hill and neighboring areas. Selection is based on academic merit, financial need and service to the community.

Educational Services Provided to Boston College's Neighbors

Boston College's College Bound Program offers students from Boston's Hyde Park, West Roxbury, and Brighton High Schools four years of academic enrichment, tutoring and college preparation to help them develop the skills and attitudes needed to gain admission to college and to succeed through graduation.

Career Beginnings, a cooperative program designed to help Boston public high school students from low-income families strengthen their chances to obtain a full-time job or gain admission to college, pairs Boston College mentors with Hyde Park High School students.

One on One pairs high school students from West Roxbury High School with Boston College mentors in an effort to provide timely role models and information that will help steer high school students towards a college education or full-time job.

Carroll School of Management graduate students provide free professional counseling, referral and research services to owners of small businesses in the greater Boston area through the Small Business Development Center at Boston College.

CSTEEP, Boston College's Center for the Study of Testing Evaluation and Educational Policy, under the auspices of the School of Education, has long been a key player both in national and local efforts to fight the stereotyping of students through standardized tests, and is working to formulate better ways of evaluating children.

Each summer Boston College runs a free computer camp for youths ages nine to 12 from the Allston-Brighton section of Boston.

Tuition vouchers are offered to local teachers who supervise student teachers from the School of Education.

Through Project 2000, 35 Boston College AHANA (an acronym for African-American, Hispanic, Asian, Native American) students have become tutors and role models for a group of Boston elementary school students. The youngsters attend Saturday sessions at BC that include tutorials, group discussions, cultural activities and recreation.

AHANA students tutor Newton Metco students; Law School students tutor and mentor in the public schools and in homeless shelters; School of Education students tutor students from schools in Newton and Boston.

In a Business Basics program, over 100 Carroll School of Management students introduce management concepts to 5th and 6th graders in 50 Boston public schools.

Boston College founded and operates the Campus School for 50 to 60 multi-handicapped children ages 6 through 21, whose special needs cannot be met in their own communities.

The School of Education collaborates with several schools in Boston and Newton, providing professional expertise and advice as requested, in addition to placing student teachers in those schools.

Boston College provides free computer training to Newton police, principals, city managers and school department personnel.

Boston College maintains a Training and Research Institute for adults with developmental disabilities.

The School of Nursing's Continuing Education program enables nurses to maintain and upgrade their professional development and certification.

Boston College is presently working with the City of Boston and the Brighton/Allston community to develop "Healthy Boston' initiative for the community.

The Heights' Boys and Girls Club offers tutoring and mentoring for Brighton children.

Public Service Projects at Boston College

Chaired by Boston College President J. Donald Monan, SJ, the Boston Fellows Program offers the support of community leaders to talented people of color who are either graduate students in Boston or newly arrived professionals in the city. The goals are to encourage the graduate students to make their careers in Boston and to familiarize new arrivals with the managerial, social and cultural resources of the city.

Over 200 PULSE students receive course credit for combining social action of 10 to 12 hours per week in a variety of local agencies with academic reflection. PULSE provides critical volunteer services to some of the city's most needy community agencies.

In 1988, the Boston College Alumni Association, in conjunction with the Boston Food Bank, launched a Second Helping community service project that provides the means for quality surplus food from restaurants, hotels and catering establishments to be delivered to various emergency kitchens throughout the Greater Boston area.

Since 1954 the highly regarded Boston College Citizen's Seminar has brought together Boston's social, political and intellectual leaders to discuss city-wide programs and to provide a forum in which the future of the city might be openly discussed.The seminars are administered by the Carroll School of Management and regularly attract hundreds of business, civic and policy leaders from around the city.

Staffed by four practicing attorneys who are also on the Boston College Law School faculty, and by 20 second and third year law students, the Legal Assistance Bureau provides free legal consultation and assistance to low income families and to the elderly.

Through the Criminal Process Clinic, twenty third year law students each semester obtain certification from the Massachusetts Supreme Court to represent those who are unable to afford legal services. Half of the students work as defenders in the Dorchester District Court and half as prosecutors in Middlesex County representing the Commonwealth.

Chinatown Project, a six credit civil clinical program open to second and third year law students, exposes students to the social, economic, political and legal issues concerning the Asian community and enables students to help residents with housing and family law issues.

Law students in the Urban Legal Laboratory work 30 hours a week for course credit in legal service, government and public interest organizations.

Student volunteers in the Urban Immersion program spend their semester-break vacation time living in Dorchester, where they help rehabilitate houses, perform outreach services for the elderly, and prepare and serve meals at a Boston soup kitchen for the homeless.

Boston College Law School has a William T. Willier Loan Forgiveness Program for students who practice public-service law.

The Small Business Development Center sponsors a Capital Formation Service which helps small businesses across the state to obtain new capital.

The Management Center of the Carroll School of Management offers the public a variety of seminars and workshops dealing with topics such as management education, special projects, research and community-oriented programs.

Each year students raise funds to support summer internships for Boston College Law School students at public interest law firms and associations.

A National Youth Sports Program for 400 economically disadvantaged boys and girls ages 10 to 16, sponsored by the NCAA (National Collegiate Athletic Association), is conducted at Boston College each summer. Campers receive instruction in drug and alcohol abuse prevention, health and nutrition, teen pregnancy and teen suicide prevention, AIDS, and educational and career opportunities in addition to participating in a rigorous sports program.

Designed to promote peace in Ireland through economic development, the Development of Entrepreneurs in Boston for Ireland Program arranges for Irish entrepreneurs to reside in the Boston area for three to nine months, during which time they participate in management programs at Boston College and work in area firms to better understand American products and markets.

Wider Horizons promotes efforts at examining resolutions to Ireland's internal conflicts by enabling 25 Irish students pursuing teaching careers, including both Catholics and Protestants from northern and southern Ireland, to examine issues common to Ireland within a different cultural context. The students participate in a four-day orientation at Boston College followed by six weeks of fieldwork in various urban educational settings in Lowell.

The International Marketing Institute helps managers in business, government and education from around the world develop international marketing strategies and networking systems.

Hosted by more than 500 BC student volunteers, the annual Festival of Friendship brings over 250 special needs students from the greater Boston area to Boston College to participate in a carnival-like fair, filled with games, entertainment and a cookout.

High school students from throughout the country who participate in the Boston College Summer Experience perform at local hospitals and retirement homes.

In cooperation with our Alumni and Admissions offices, books are awarded each year to local high school students in Brighton and several greater Boston schools for outstanding academic achievement and community involvement.

To assure a rapid response to complaints, Boston College has established a Community Assistance Program (CAP) complaint response network for local residents.

Prior to the start of classes each fall, two dozen Carroll School of Management students in the honors program assist with rehabilitation work at two low-income housing sites in Boston as part of a First Serve Program.

In conjunction with the Museum of Afro-American History, Boston College sponsors an annual Blacks in Boston conference.

Sponsored by the Boston College Law School and open to the community, the annual Environmental Law Conference addresses issues of environmental concern.

Open to the community, an annual Law School sponsored-Holocaust/Human Rights Conference is attended by international figures who discuss human rights issues.

Boston College Athletics Department hosts summer and vacation week football, soccer and basketball clinics for youths.

Law students are forming a non-profit corporation to rehabilitate and run subsidized housing for the poor.

Other public service projects include the continuously successful United Way drives, community blood drives, Big Brothers/Big Sisters program, clothing drives, Society for Young Victims chapter, Amnesty International chapter, The Coalition Against Nuclear War chapter, environmental awareness groups, World Hunger Committee, and aid for the elderly in tax preparation.

Boston College strongly encourages public service on the part of its students, faculty and staff, who have volunteered at over 50 social service agencies and in Appalachia, Haiti, Jamaica, Belize, Peru and Egypt. The Jesuit Volunteer Corps sponsors graduating students to work for two years either in urban settings in the United States or in third world countries. The Office of Community Affairs maintains a Volunteer Data Base listing current volunteer opportunities.

Boston College provides financial support for local organizations such as Freedom House, Action for Boston Community Development, Roxbury's Twelfth Baptist Church, Roxbury's St. Francis de Sales School, and the Boston Police Alliance.

Summer memberships at the Recreation Complex are open to the public. Last year, 86 community families and 45 individuals took advantage of this opportunity.

Boston College, through the Office of Community Affairs, provides access to its dining facilities, classroom space, theater and recreation facilities to outside groups on special occasions whenever space can be made available. Some recent functions Boston College hosted include:

Veronica B. Smith Multi-Service Senior Center Annual Luncheon
Brighton Board of Trade Annual Dinner
Allston/Brighton Youth Hockey League
Brighton Mental Health Coalition
Neighborhood Coalition of 2000 Commonwealth Avenue
Shriners' All Star High School Football Game
Big Brothers and Big Sisters of Greater Boston
Festival of Friendship (serves over 250 special needs children)
Medical Swim (benefitting severely handicapped individuals)
Mayor Flynn's Staff Development Day

The Boston College shuttle bus is available to Boston and Newton residents free of charge.

Cultural Events at Boston College open to our Neighbors
(for information, call 552-4787)

Dramatic performances of the Dramatic Society, Children's Theater, Contemporary Theater Company, and independent student groups.

Musical performances of the University Chorale, the Boston College Symphony, the Bostonians and student and faculty recitals.

Dance performances of the Boston College Dance Ensemble and the Liturgical Dance Ensemble.

Lecture Series

Gasson Lecture series on literature and religion

Health series

Social Justice lectures

Cultural lecture series

Martin Luther King Committee lectures and book discussions

Exhibits and lectures at Boston College's Art Museum

Music Guild sponsors special performances each semester

Sports Events

Ticket Programs for the Community
Local youths are invited to men's soccer and women's basketball games at no cost.
Allston/Brighton Area Planning and Advisory Council receives 50 tickets for each home football, basketball and hockey game.
Residents of Allston/Brighton and Newton are given a pair of tickets for a basketball or hockey game.
For each Dramatic Society main stage performance, 30 free tickets are reserved for local groups.

For more information, contact the Office of Community Affairs, Hopkins House, 116 College Road, Chestnut Hill, MA 02167 or call 552-4787.

CHAPTER TEN
MAPS

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Map #7	Existing Pedestrian and Automobile Circulation - Newton
Map #8	Existing Open Space - Chestnut Hill
Map #9	Existing Open Space - Newton
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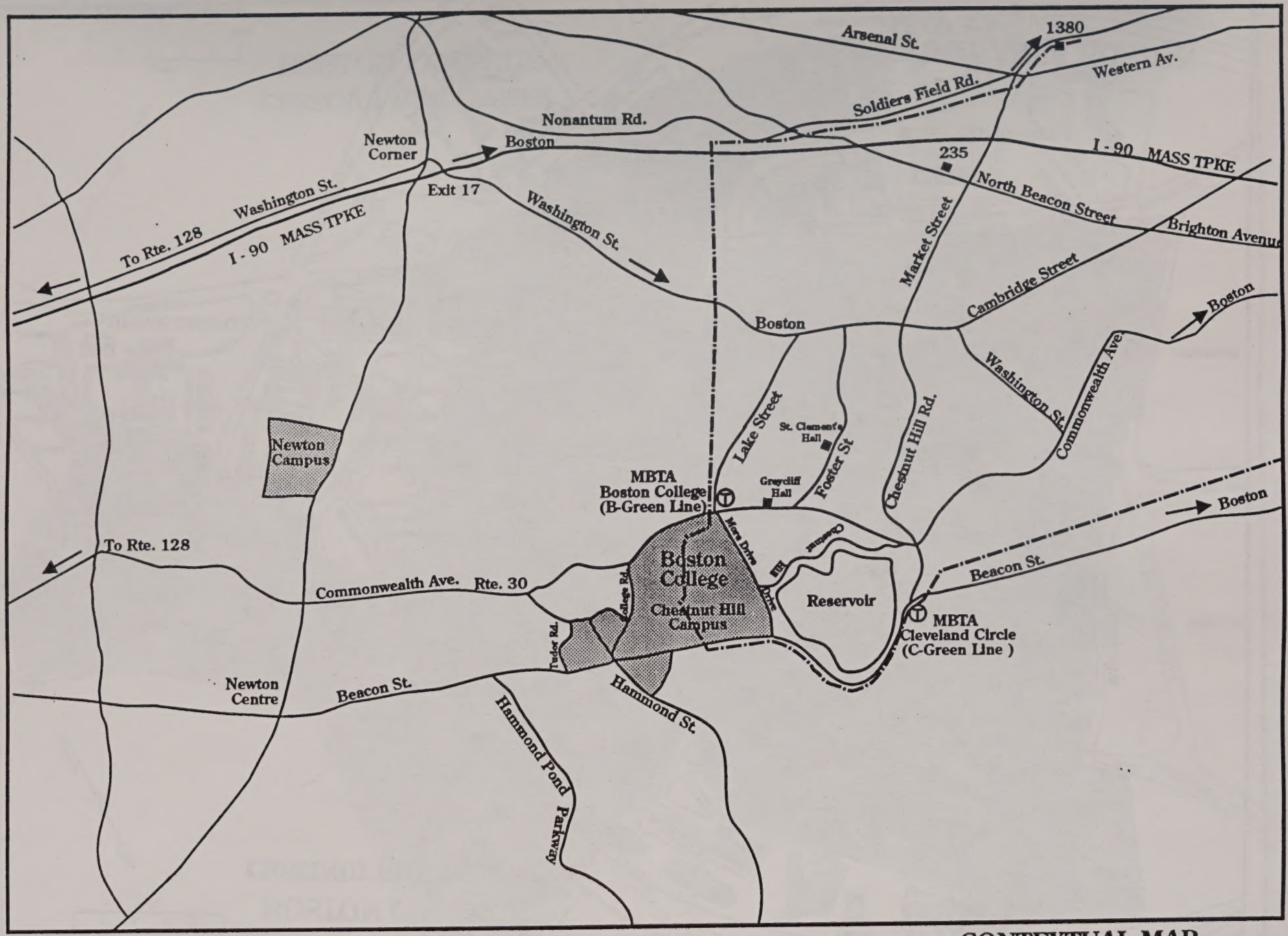
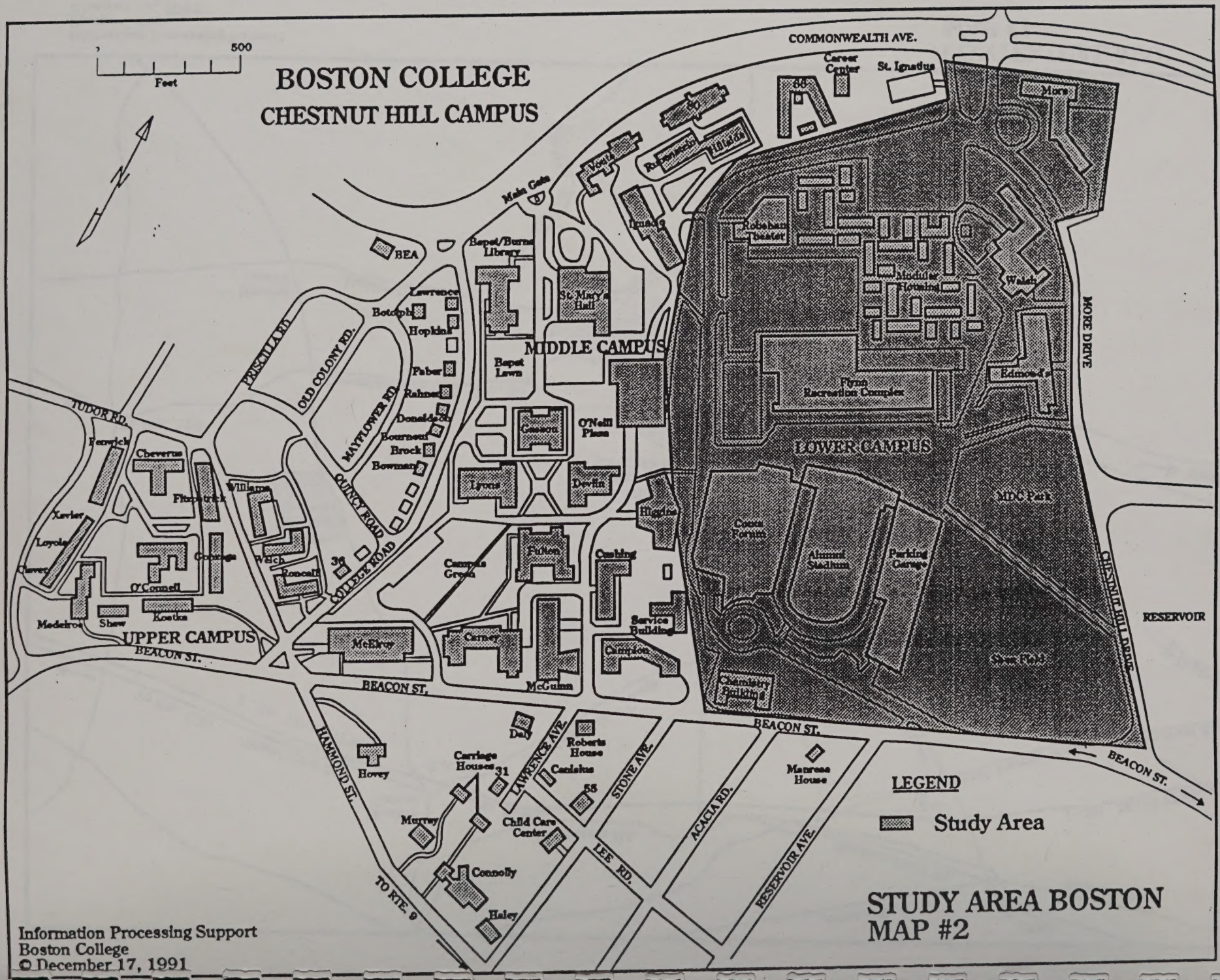
Map #14	Development Sites and Opportunities - Newton
Map #15	Anticipated Map of Boston College - Chestnut Hill, 2001
Map #16	Anticipated Map of Boston College - Newton Campus, 2001



Information Processing Support
Boston College
©January 13, 1992

CONTEXTUAL MAP
MAP #1


BOSTON COLLEGE
CHESTNUT HILL CAMPUS
500
Feet
COMMONWEALTH AVE.
Career Center
St. Ignatius
Main Gate
BEA
Bapst/Burns Library
St. Mary's Hall
MIDDLE CAMPUS
Lawrence
Bottolph
Hopkins
Faber
Rahner
Donaldson
Bournent
Brock
Bowman
Gasson
O'Neill Plaza
Lyons
Devlin
Higgins
Fulton
Cushing
Campus Green
Robsham Theater
Modular Housing
Walsh
Flynn Recreation Complex
Edmond's
MOORE DRIVE
LOWER CAMPUS
MDC Park
Conte Forum
Alumni Stadium
Parking Garage
Shea Field
Chemistry Building
Service Building
Campion
McGuinn
Carney
McElroy
RESERVOIR
CHESTNUT HILL DRIVE
PRISCILLA RD.
OLD COLONY RD.
MAYFLOWER RD.
QUINCY ROAD
COLLEGE ROAD
TUDOR RD.
Fenwick
Cheverus
Williams
Fitzpatrick
Xavier
Loyola
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RESERVOIR AVE.
Manresa House
LEGEND
Study Area
STUDY AREA BOSTON
MAP #2
Information Processing Support
Boston College
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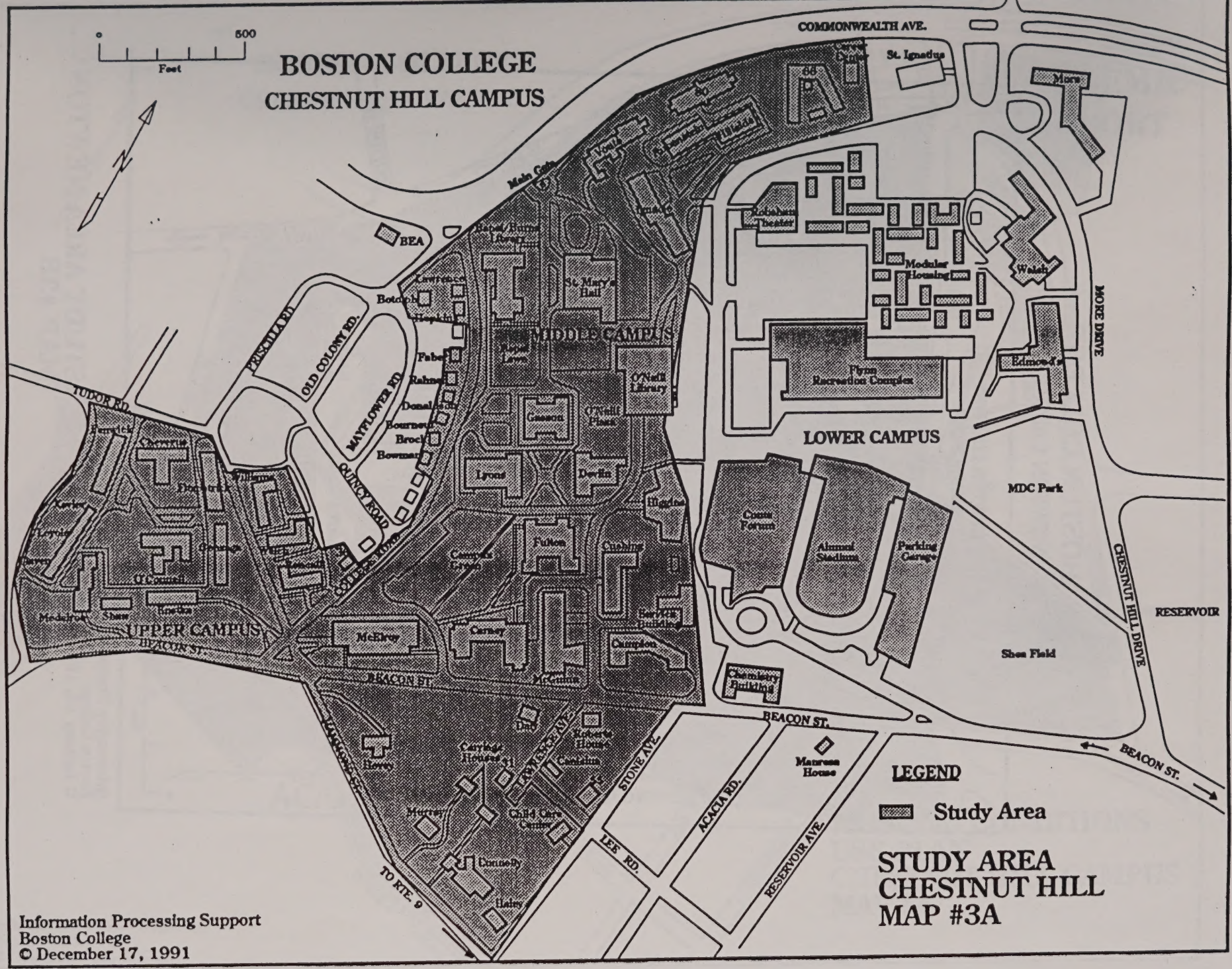
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Devlin
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Hoey
Rubenstein Theater
Modular Housing
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Chemistry Building
Manresa House
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Study Area
STUDY AREA
CHESTNUT HILL
MAP #3A
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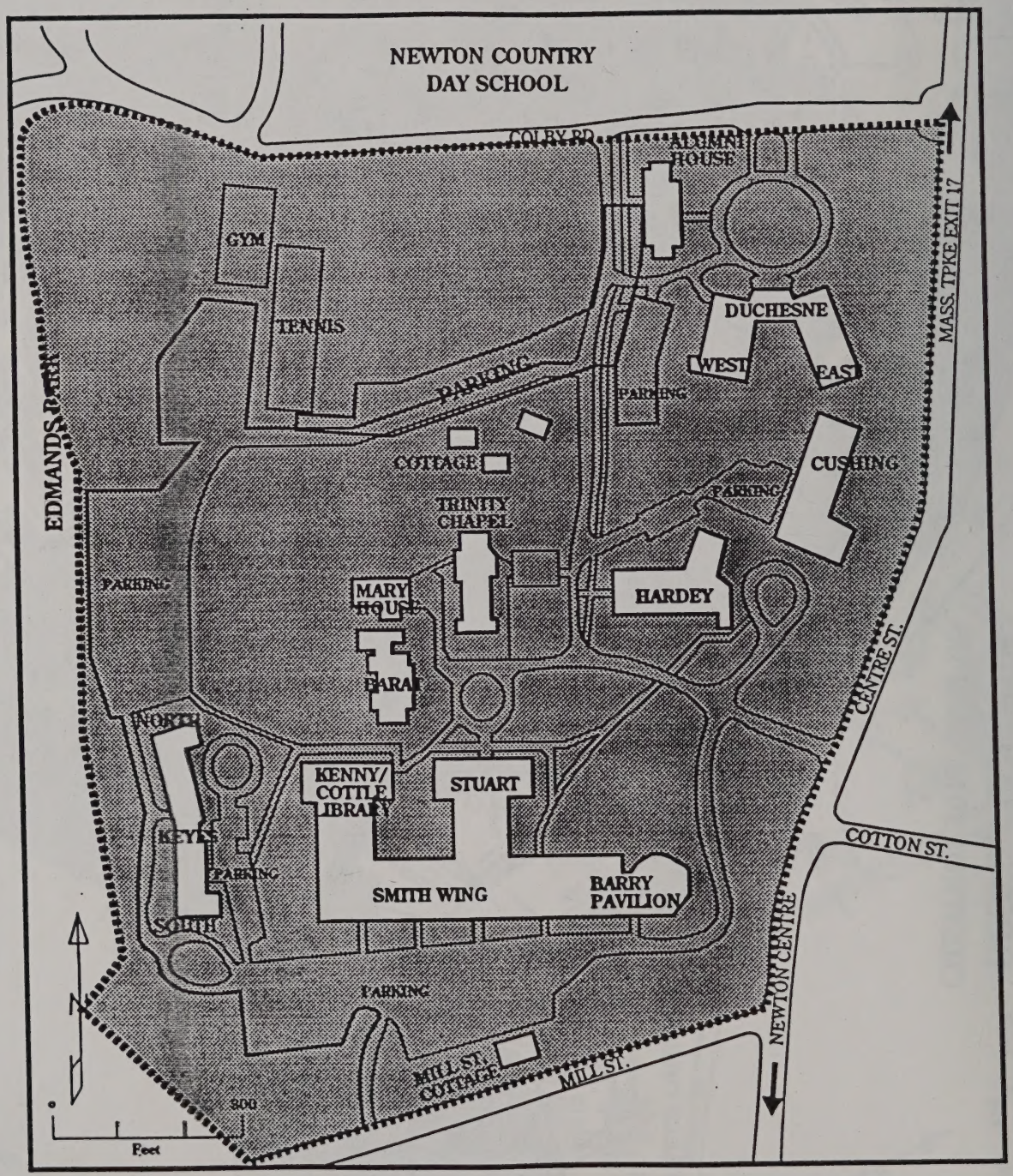
BOSTON COLLEGE
NEWTON CAMPUS



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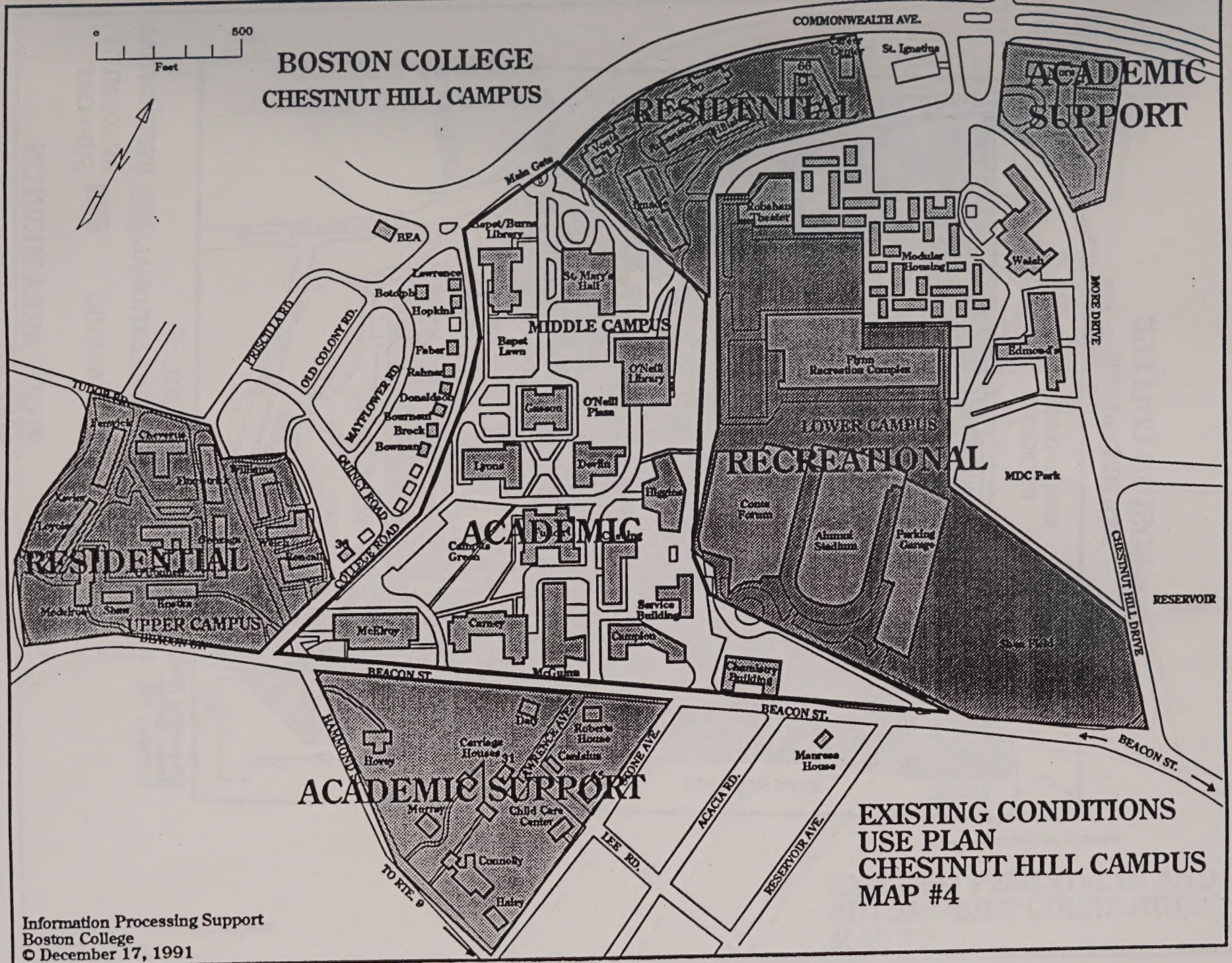
STUDY AREA NEWTON
MAP #3B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Bapst/Burns Library
St. Mary's Hall
Bapst Lawn
O'Neill Library
O'Neill Plaza
Gasson
Lyons
Devlin
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Campion Center
Campion Green
Service Building
Carney
McElroy
McGuinn
Chemistry Building
Robsham Theater
Modular Housing
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Parking Garage
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Lonergan
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Hovey
Carriage Houses
31
Roberts House
Cushing
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Murray
Child Care Center
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Manresa House
EXISTING CONDITIONS
USE PLAN
CHESTNUT HILL CAMPUS
MAP #4
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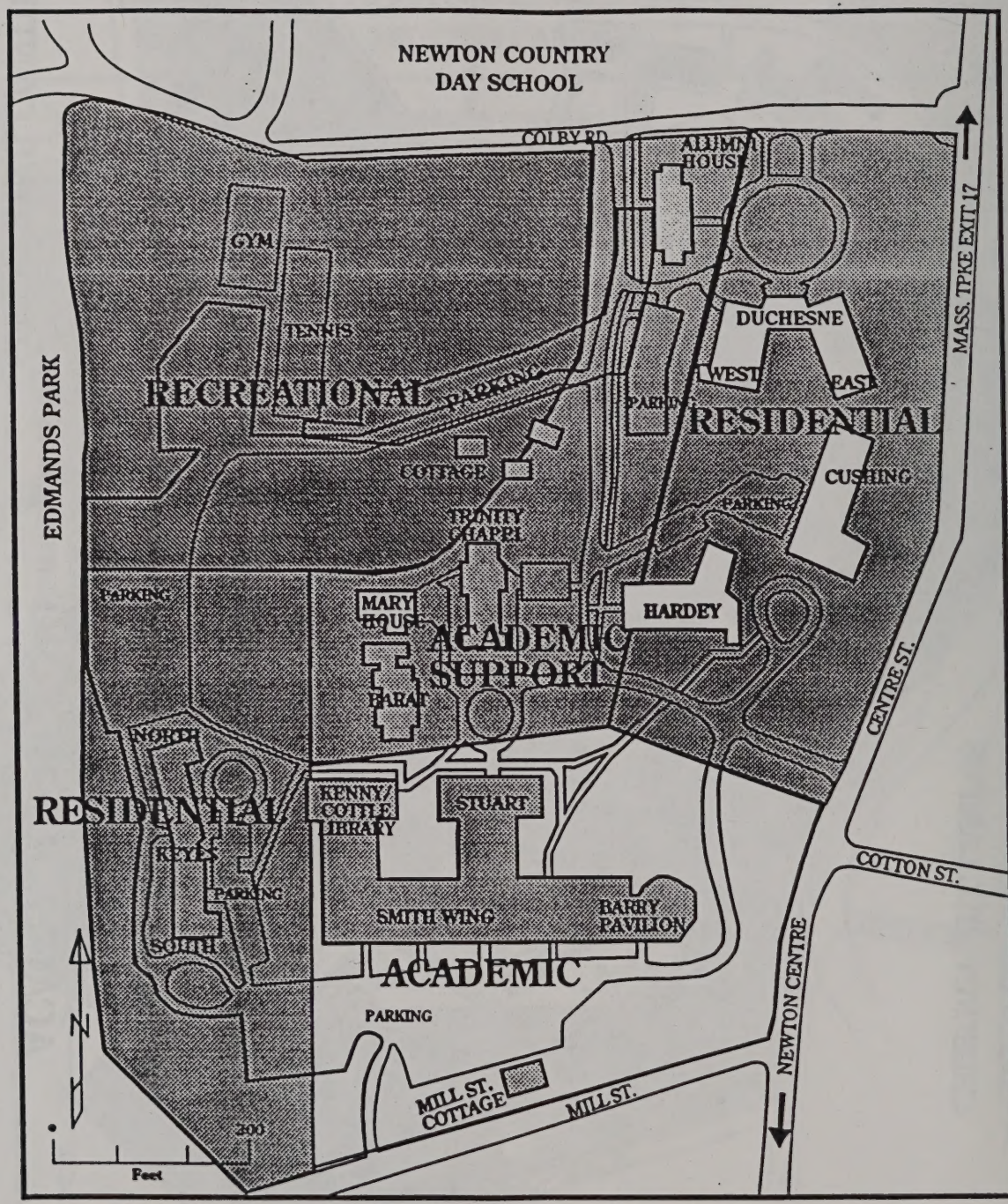
BOSTON COLLEGE
NEWTON CAMPUS



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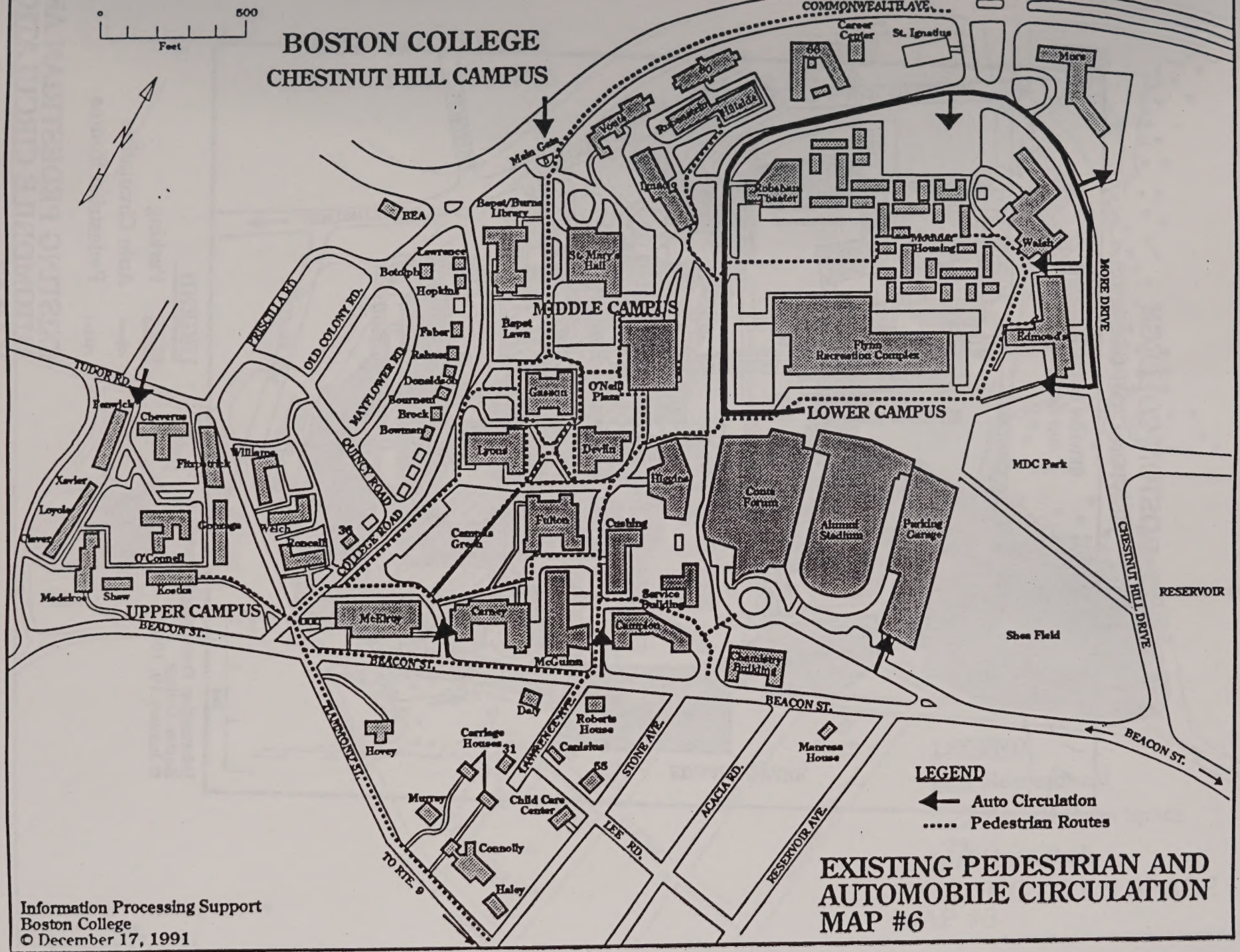
LEGEND

- RECREATIONAL
- RESIDENTIAL
- ACADEMIC
- ACADEMIC SUPPORT

STUDY AREA NEWTON
MAP #5



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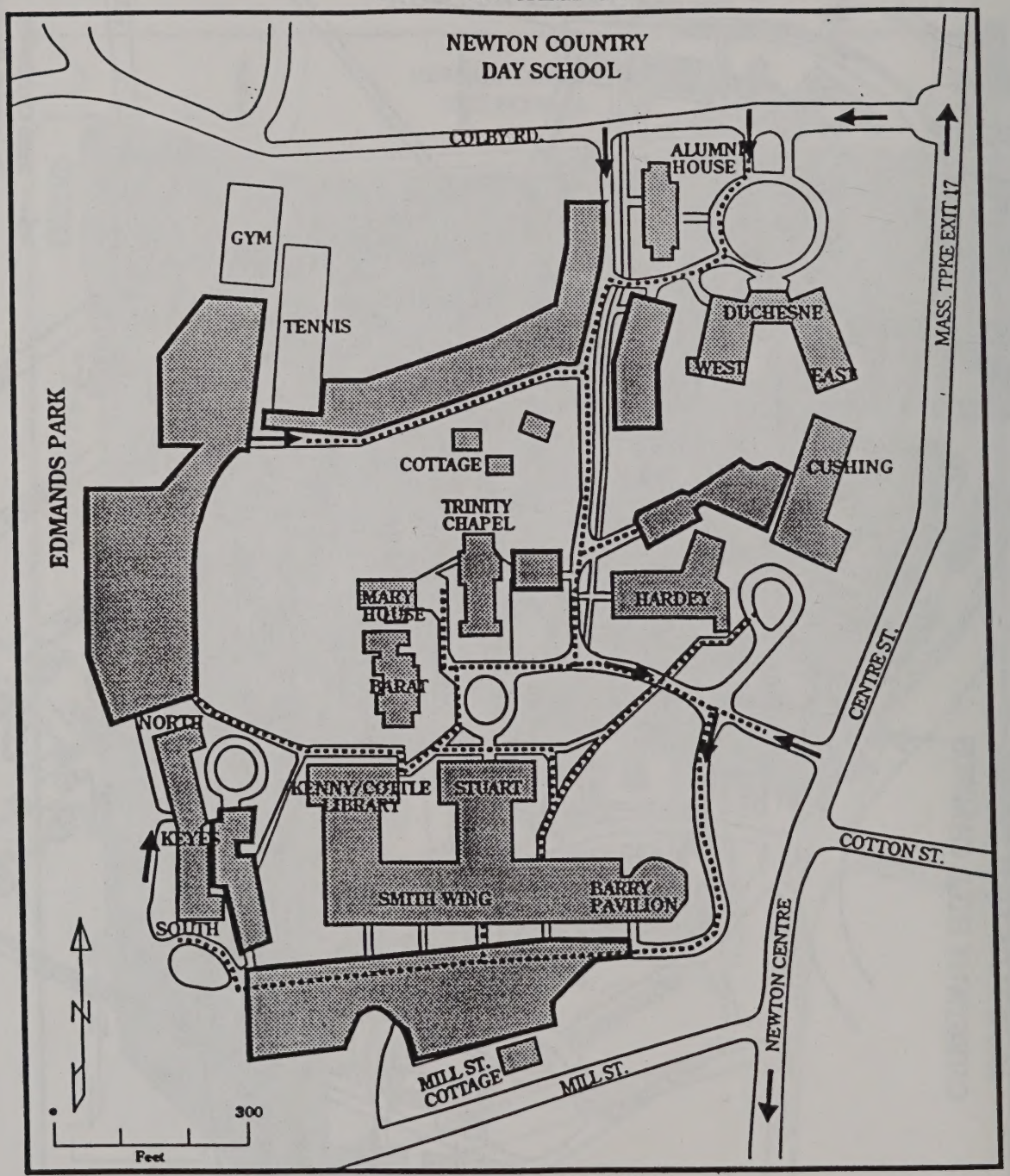
BOSTON COLLEGE
NEWTON CAMPUS



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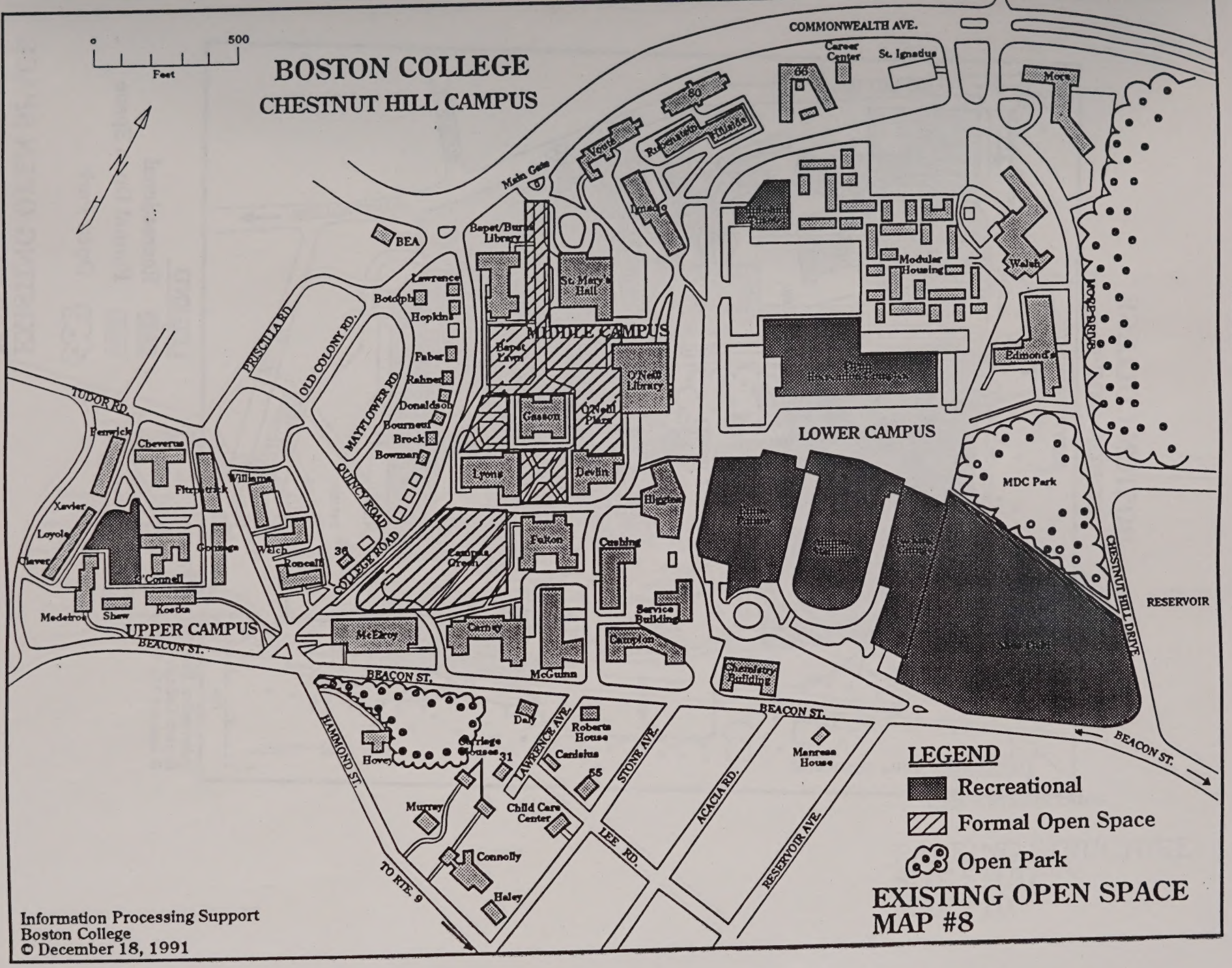
LEGEND

- Parking
- ← Auto Circulation
- ..... Pedestrian Routes

EXISTING PEDESTRIAN AND AUTOMOBILE CIRCULATION MAP #7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St. Mary's Hall
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O'Neill Library
O'Neill Plaza
Gasson
Lyons
Devlin
Fulton
Campus Green
Higgins
Cushing
Service Building
Campion
McGuinn
Carney
McElroy
Chemistry Building
Modular Housing
Walsh
Edmond's
LOWER CAMPUS
MDC Park
RESERVOIR
CHESTNUT HILL DRIVE
MORE DRIVE
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Rahner
Donaldson
Bourneuf
Brock
Bowman
PRISCILLA RD.
OLD COLONY RD.
MAYFLOWER RD.
QUINCY ROAD
COLLEGE ROAD
TUDOR RD.
Berwick
Cheverus
Fitzpatrick
Williams
Xavier
Loyola
Cheverus
Gonzaga
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Roncalli
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UPPER CAMPUS
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LAWRENCE AVE.
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ACACIA RD.
Manresa House
Murray
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LEE RD.
RESERVOIR AVE.
Connolly
Haley
TO RTE. 9
LEGEND
Recreational
Formal Open Space
Open Park
EXISTING OPEN SPACE
MAP #8
Information Processing Support
Boston College
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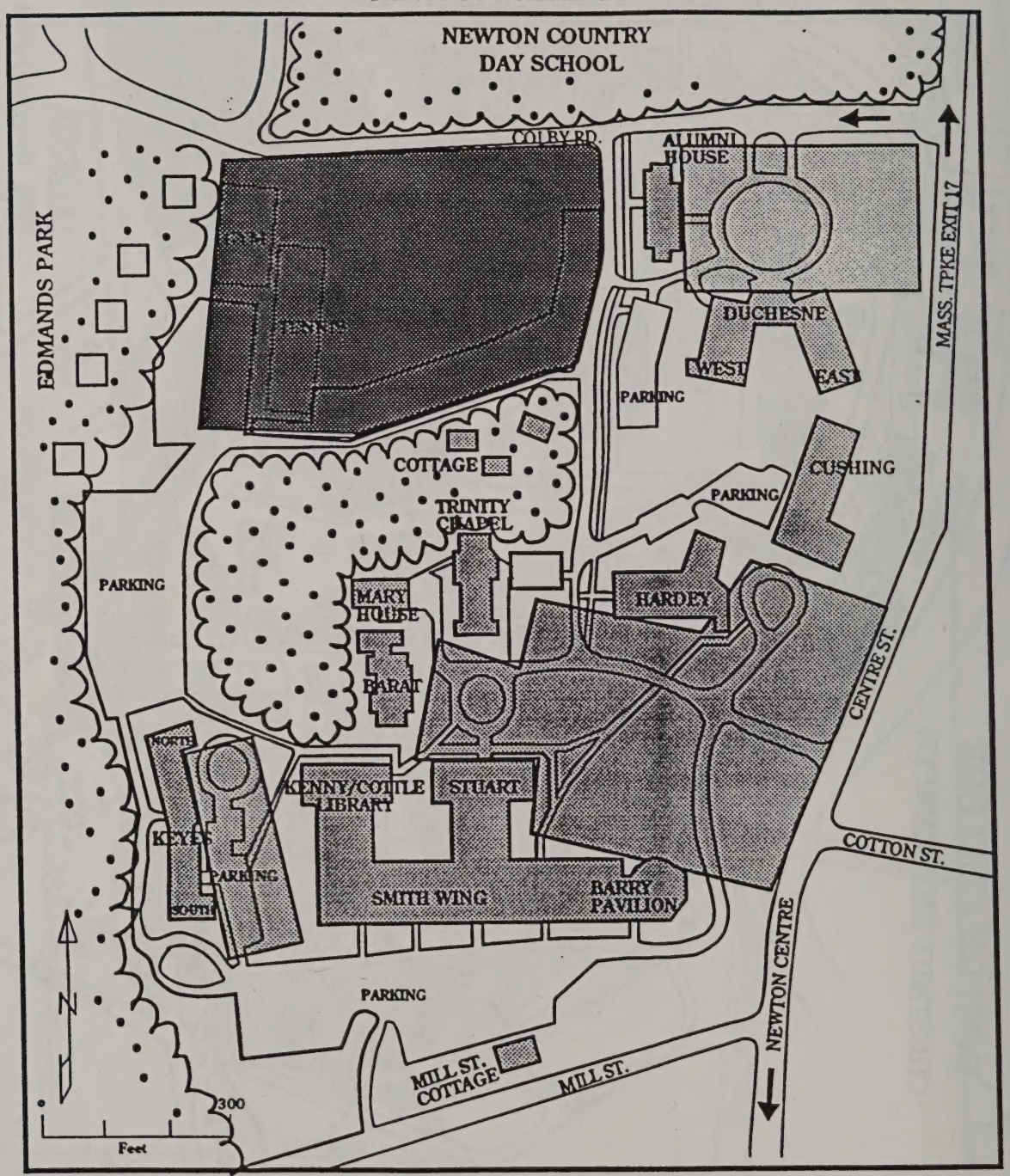
BOSTON COLLEGE
NEWTON CAMPUS



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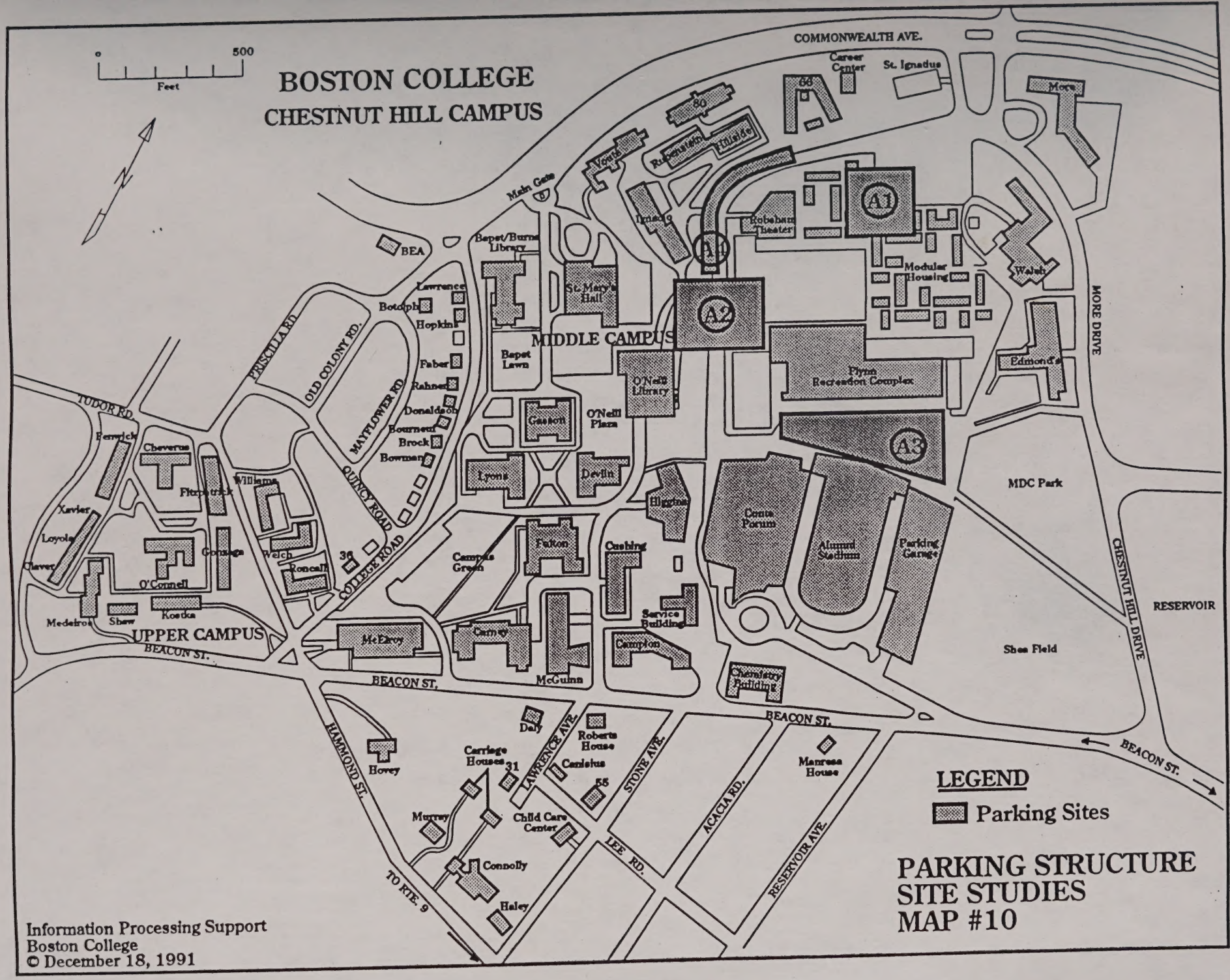
LEGEND

- Recreational
- Formal Open Space
- Open Park

EXISTING OPEN SPACE
MAP #9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A3
Modular Housing
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St. Mary's Hall
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Bapst Lawn
O'Neill Library
Flynn Recreation Complex
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Hopkins
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Rahner
Donaldson
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MAYFLOWER RD.
QUINCY ROAD
TUDOR RD.
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Xavier
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Claver
Gonzaga
Welch
Roncalli
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COLLEGE ROAD
O'Connell
Medeiros
Shaw
Kostka
UPPER CAMPUS
BEACON ST.
Gasson
O'Neill Plaza
Lyons
Devlin
Higgins
Cuma Parum
Alumni Stadium
Parking Garage
MDC Park
Campus Green
Fulton
Cushing
Service Building
McElroy
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Chemistry Building
Shea Field
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RESERVOIR
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Roberts House
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Child Care Center
LEE RD.
RESERVOIR AVE.
Connolly
Haley
TO RTE. 9
LEGEND
Parking Sites
PARKING STRUCTURE
SITE STUDIES
MAP #10
Information Processing Support
Boston College
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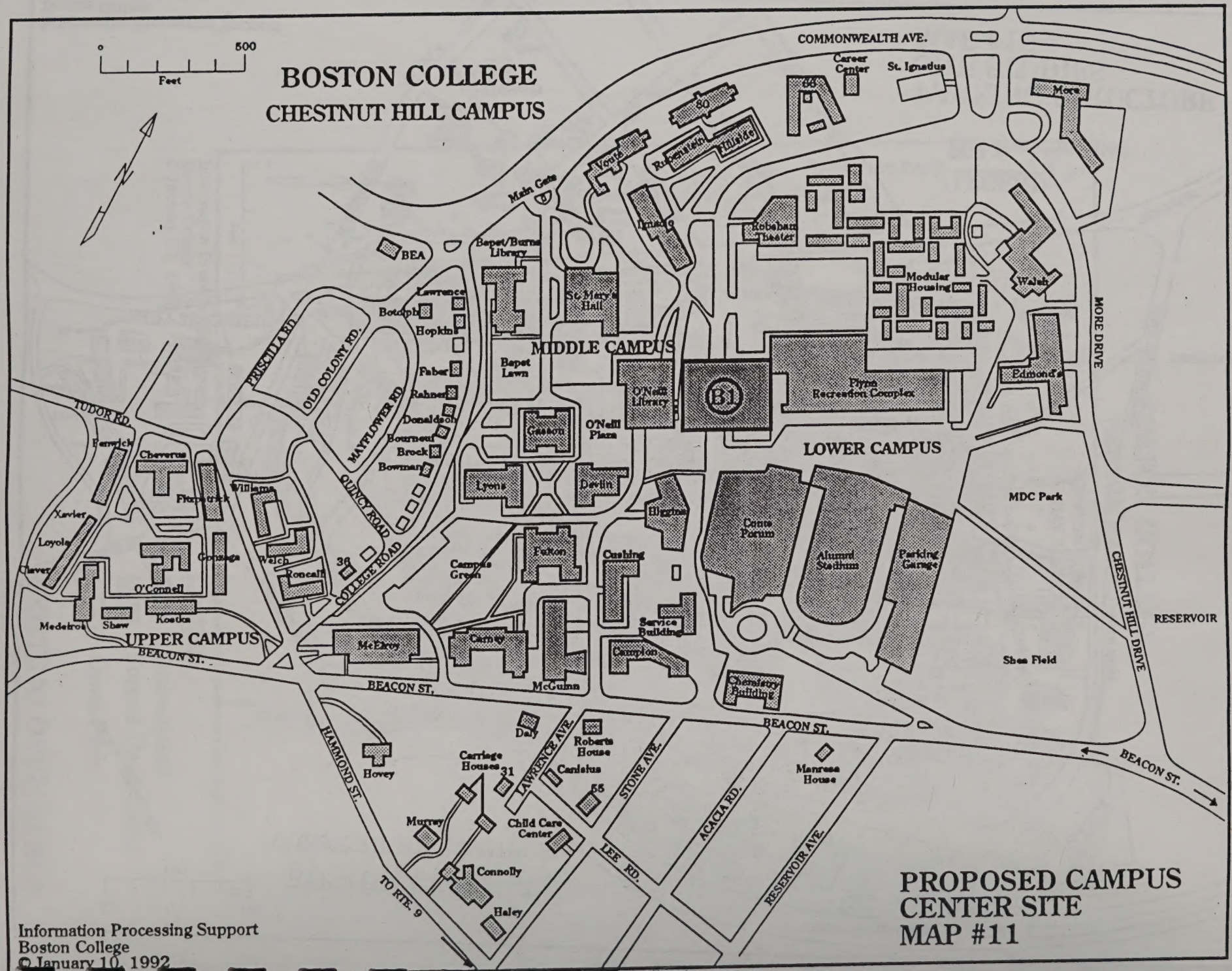
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Gonzaga
Welch
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Child Care Center
Connolly
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LEE RD.
RESERVOIR AVE.
TO RTE. 9
PROPOSED CAMPUS CENTER SITE
MAP #11
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Boston College
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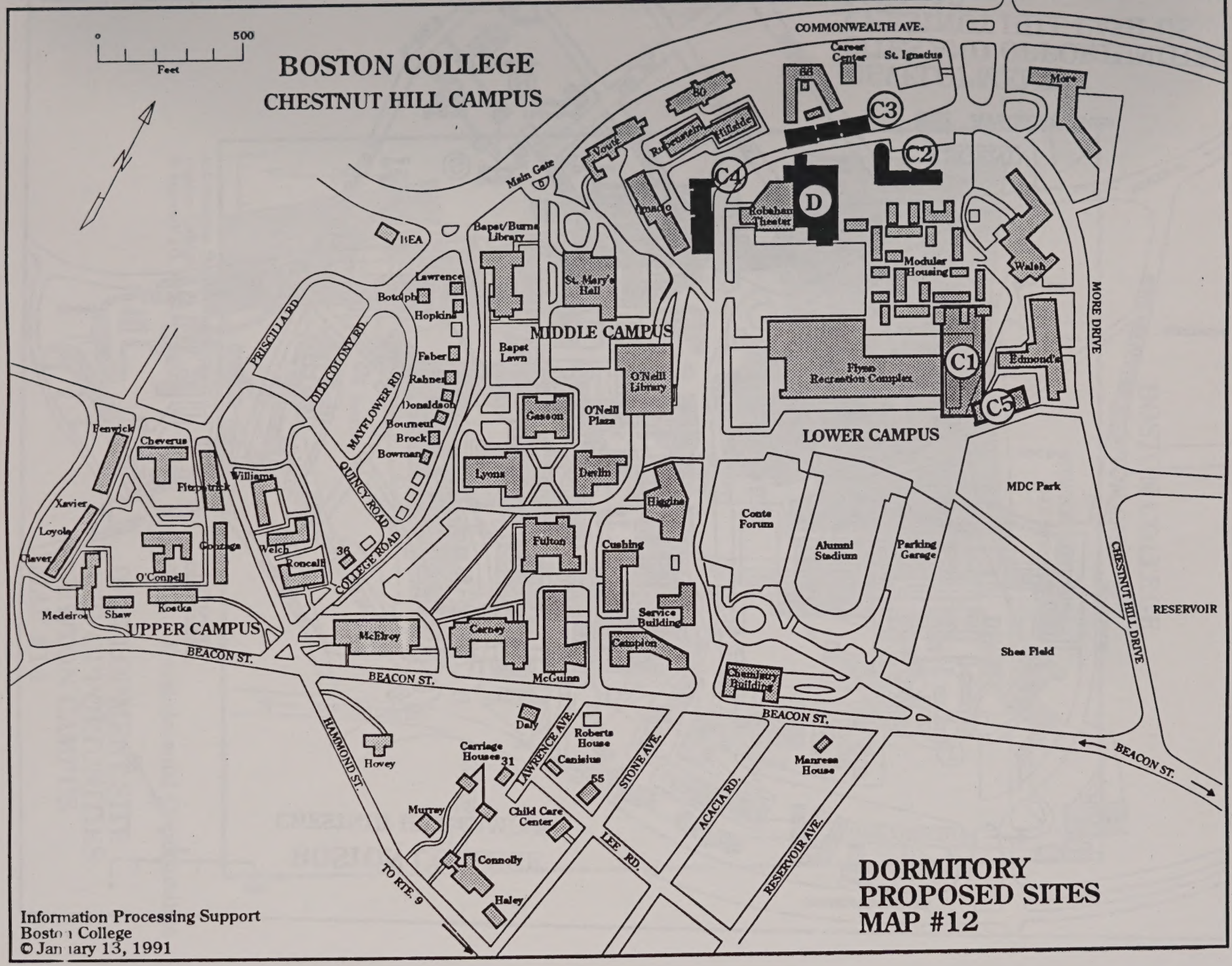
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St. Mary's Hall
MIDDLE CAMPUS
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O'Neill Library
O'Neill Plaza
Gasson
Flynn Recreation Complex
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MDC Park
Conte Forum
Alumni Stadium
Parking Garage
Shea Field
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McElroy
Chemistry Building
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QUINCY ROAD
MAYFLOWER RD
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Rahner
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Bourneuf
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Child Care Center
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Manresa House
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LAWRENCE AVE.
STONE AVE.
ACACIA RD.
LEE RD.
RESERVOIR AVE.
TO RTE. 9
C1
C2
C3
C4
C5
D
DORMITORY
PROPOSED SITES
MAP #12
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Boston College
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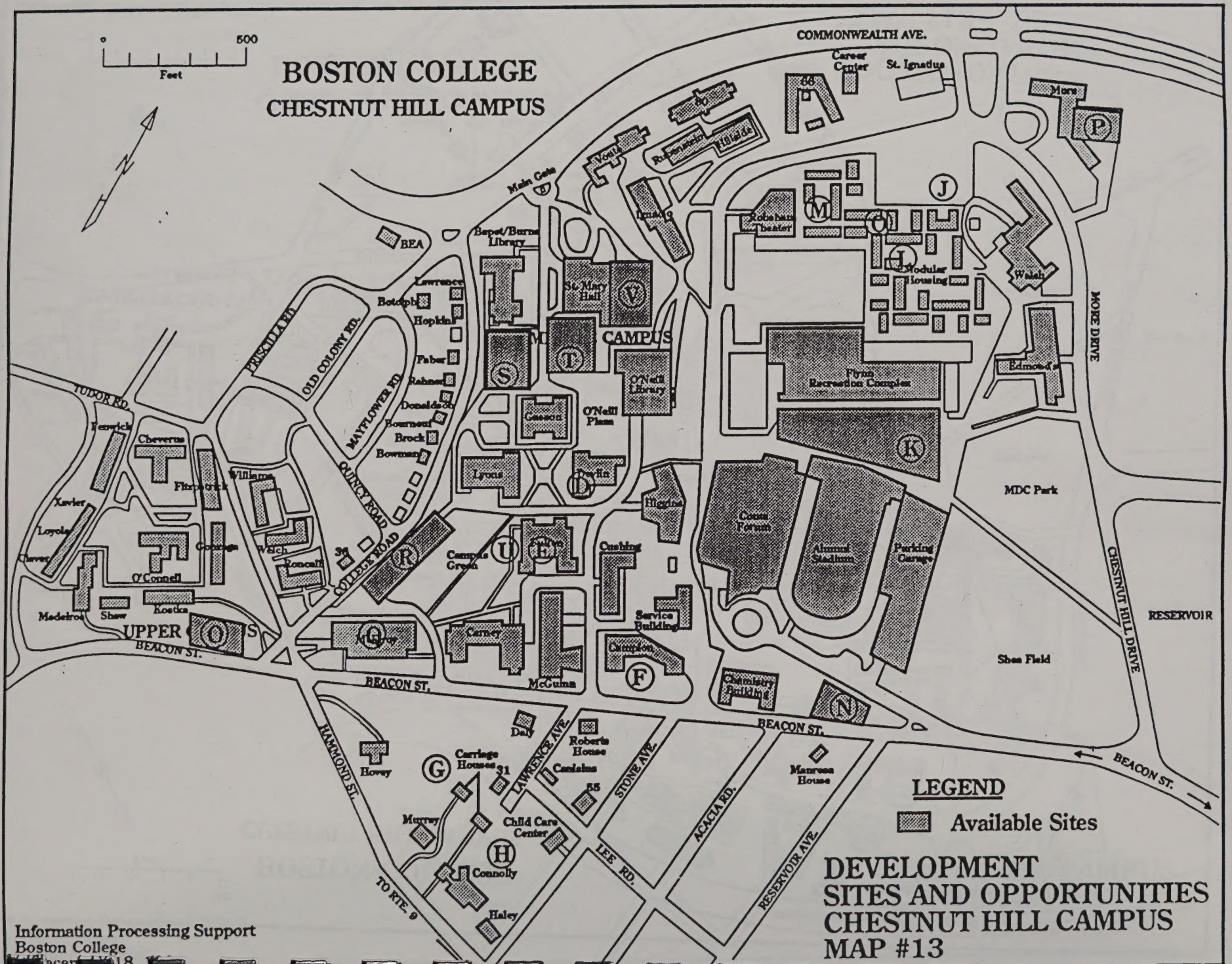
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LAWRENCE AVE.
STONE AVE.
ACACIA RD.
LEE RD.
RESERVOIR AVE.
CHESTNUT HILL DRIVE
TO RTE. 9
LEGEND
Available Sites
DEVELOPMENT
SITES AND OPPORTUNITIES
CHESTNUT HILL CAMPUS
MAP #13
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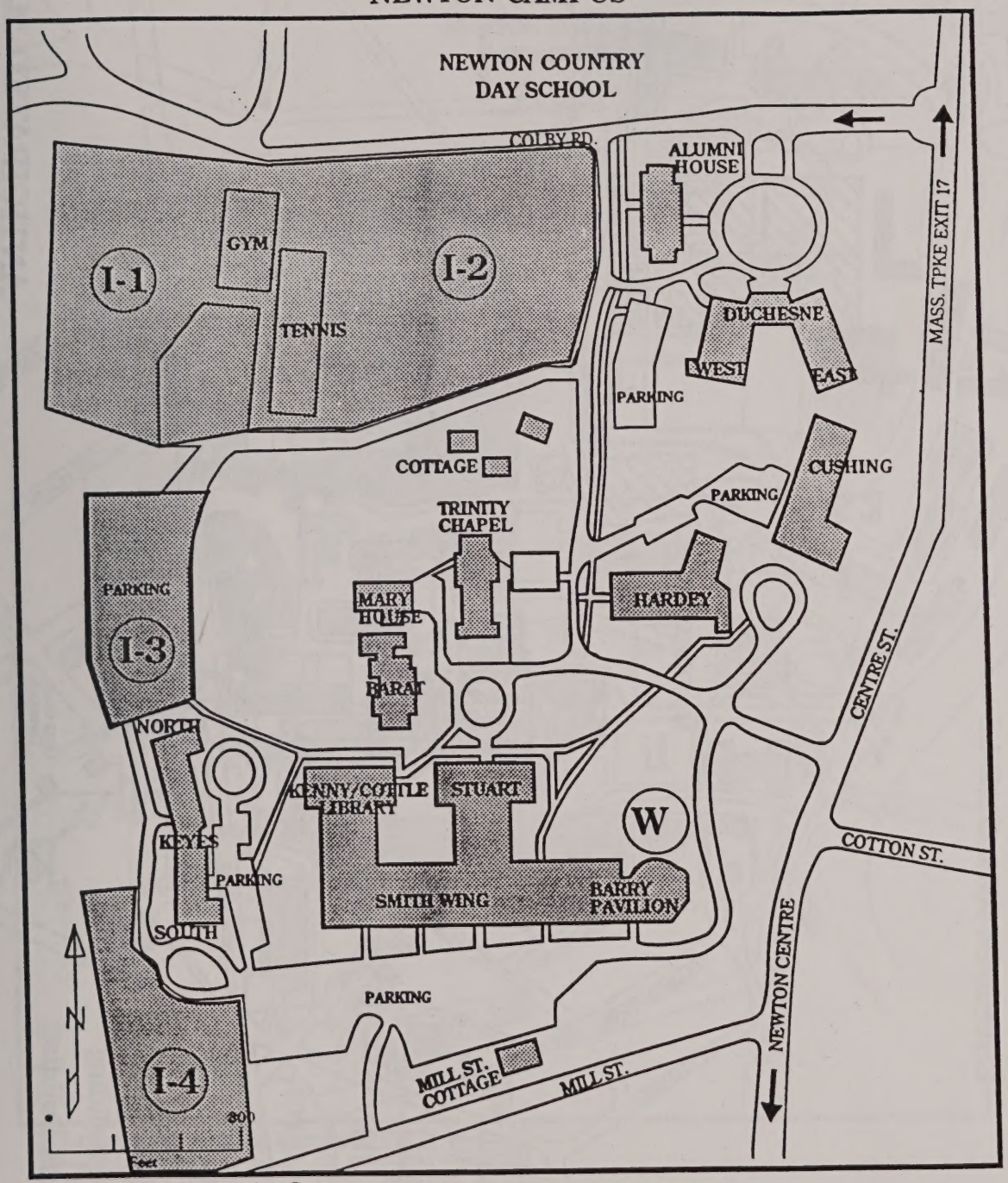
Boston College

BOSTON COLLEGE
NEWTON CAMPUS



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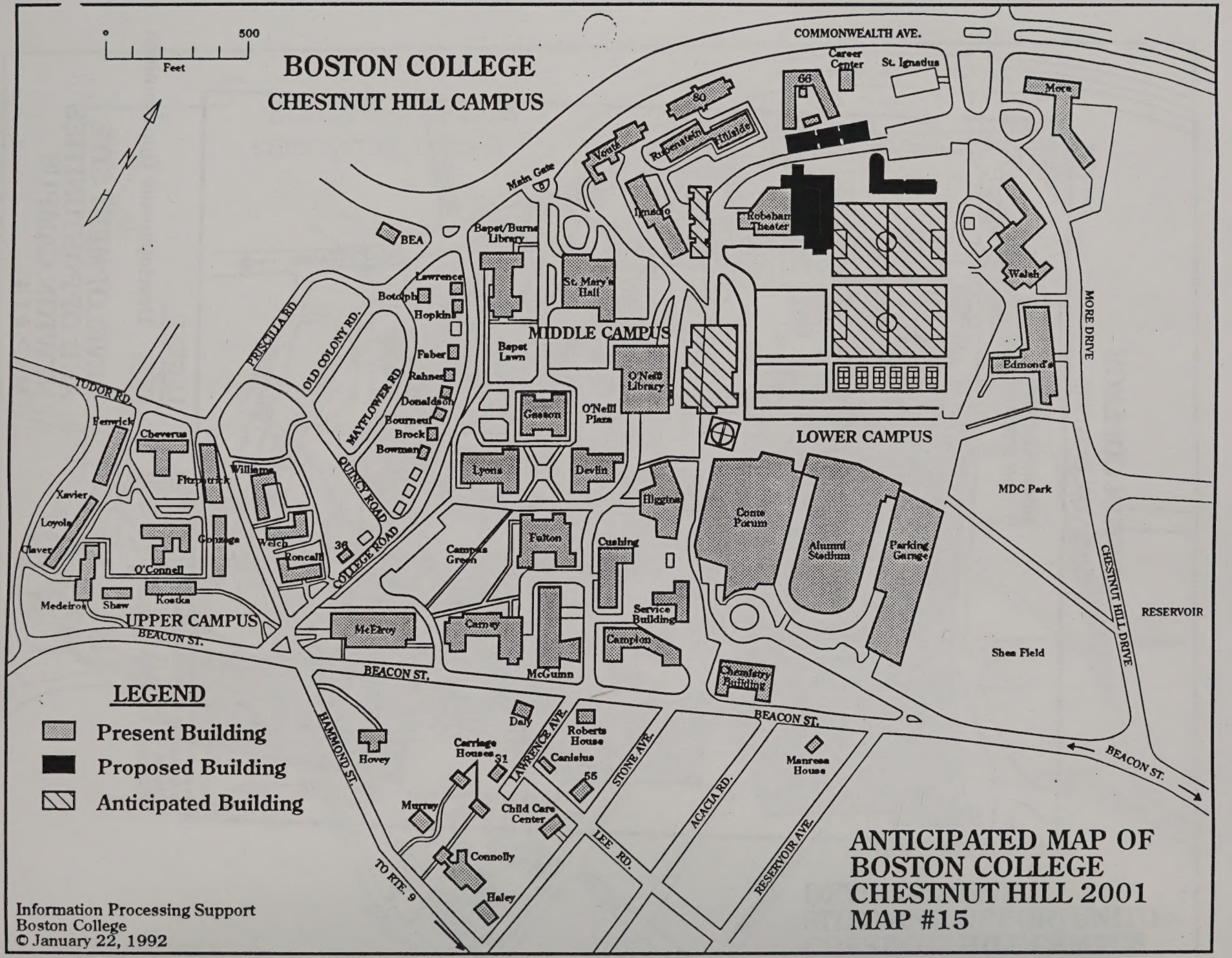
LEGEND

Developmental Opportunities

DEVELOPMENT SITE AND OPPORTUNITIES NEWTON CAMPUS MAP #14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MAYFLOWER RD.
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BEACON ST.
Lyons
Devlin
Higgins
Campus Green
Fulton
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Conte Forum
Alumni Stadium
Parking Garage
LOWER CAMPUS
MDC Park
CHESTNUT HILL DRIVE
RESERVOIR
Shea Field
Service Building
McElroy
Carney
McGuinn
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Chemistry Building
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Anticipated Building
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Carriage Houses
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Roberts House
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LAWRENCE AVE.
STONE AVE.
ACACIA RD.
Manresa House
Murray
Child Care Center
LEE RD.
RESERVOIR AVE.
Connolly
Haley
TO RTE. 9
ANTICIPATED MAP OF
BOSTON COLLEGE
CHESTNUT HILL 2001
MAP #15
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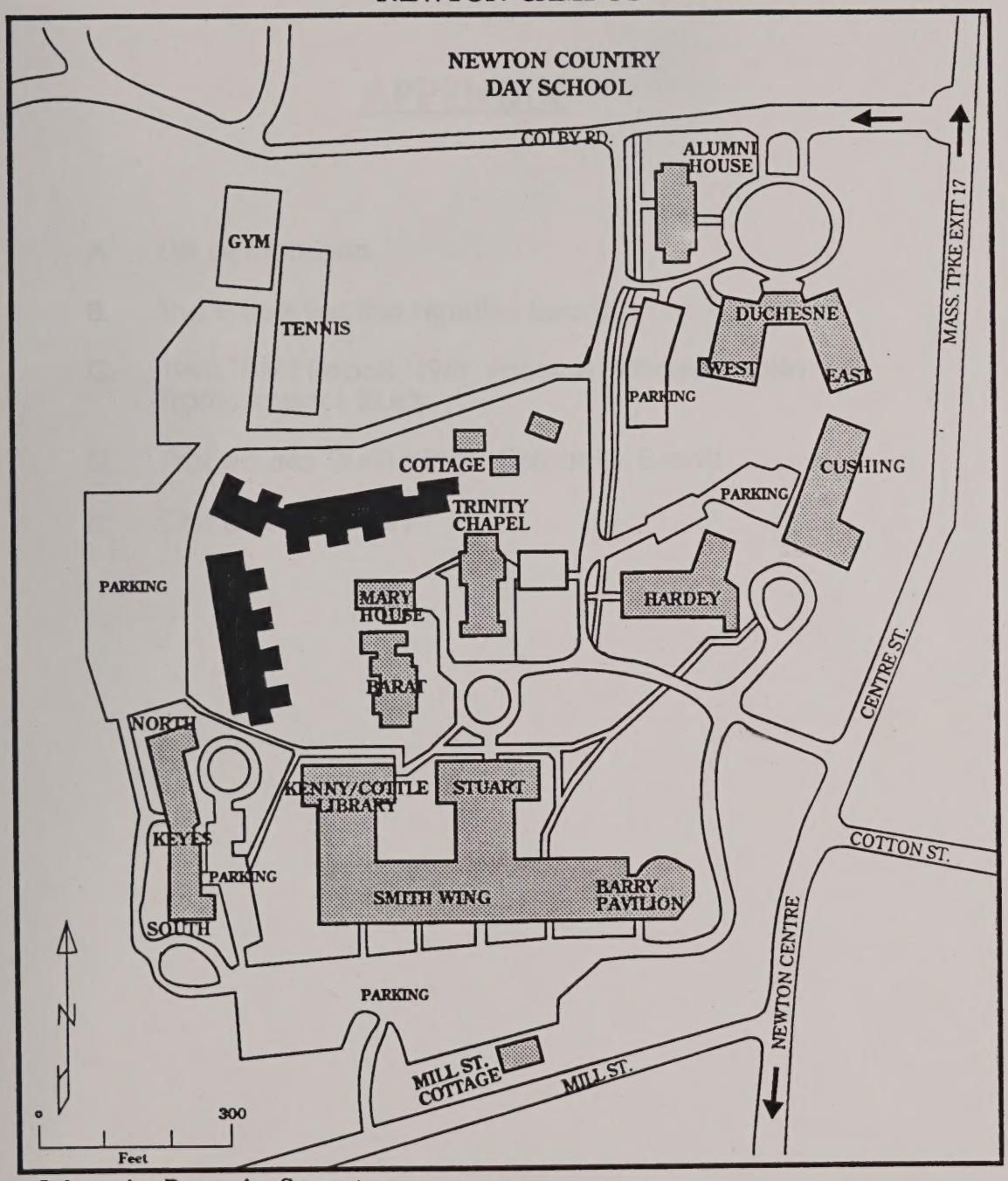
BOSTON COLLEGE
NEWTON CAMPUS



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ANTICIPATED MAP OF BOSTON COLLEGE NEWTON CAMPUS 2001 MAP #16

APPENDIX

A. List of Members

B. The Goals For The Nineties Report.

C. 1990 TAMS Report, 1989 Vanasse Hangen Brustlin, Inc. Traffic Impact Study

D. Procedures During High Capacity Events

E. Campus Inventory

APPENDIX A

Allston-Brighton/Boston College
Community Relations Committee

APPENDIX A

ALLSTON-BRIGHTON BOSTON COLLEGE COMMUNITY RELATIONS COMMITTEE

List of Members

Stephen J. Costello, Chairman
120 Lake Street
Brighton, MA 02135

John Carmilia, Co-Chairman
10 Portsmouth Street
Brighton, MA 02135

Don Chalmers
Allston Board of Trade
121 Brighton Avenue
Brighton, MA 02135

Marion Alford
LUCK Neighborhood Assoc.
40 Lake Street
Brighton, MA 02135

Terry Cohen
Corey Hill II Neighborhood Assoc.
8 Egremont Road
Brookline, MA 02146

Ray Mellone
53 Coolidge Road
Allston, MA 02134

Lucy Tempesta
Washington Hghts. Citizens Assoc.
51 Shannon Street
Brighton, MA 02135

Gerry Kavanaugh
Boston Redevelopment Authority
1 City Hall Square
Boston, MA 02210

Peter Barry
8 Melton Street
Brighton, MA 02135

Bob Dunn
ACA
30 Aldie Street
Allston, MA 02134

Helen Pillsbury
Circle Reservoir Comm. Assoc.
1875 Commonwealth Avenue
Brighton, MA 02135

Tom Miller
ACA
21 Parkvale Ave., Apt. #10
Allston, MA 02134

Allan Morgenroth
156 Lake Street
Brighton, MA 02135

William McCarthy
Boston Redevelopment Authority
1 City Hall Square
Boston, MA 02210

APPENDIX B

The Goals For The Nineties Report

APPENDIX B

THE GOALS FOR THE NINETIES REPORT

The Goals for the Nineties University Planning Council was convened by the President of Boston College in Fall, 1984 and was directed "to articulate as clearly and realistically as possible the qualitative academic goals to which the University should aspire by the year 1990". The Council was also expected to develop, to the extent possible, an analysis of the human and physical resources needed to achieve these goals.

THE STATEMENT OF UNIVERSITY IDEALS

As the Goals for the Nineties Council began its work, it seemed clear that Boston College stood at a critical juncture in its history. In the past decade, it had enjoyed financial stability, improved physical resources and an enhanced academic reputation that had attracted a strong faculty and enthusiastic students. The time seemed appropriate to set higher goals and to fashion a new vision that would insure that Boston College reached its full potential as a university and as a distinctively Catholic and Jesuit institution.

The Council resolved in the beginning that its vision should be ambitious, rather than cautious. In a wide ranging discussion of ideals for the 1990s, three themes emerged: Boston College as distinctive and excellent; as Catholic and Jesuit; and as an enriching intellectual and personal environment.

DISTINCTIVE ACADEMIC EXCELLENCE Founded as a small, Jesuit liberal arts college for men in 1863, Boston College's character and mission were formed by the centuries-old tradition of Jesuit spirituality and education. Almost a century and a quarter later, Boston College has become a complex, coeducational university, encompassing a rich mixture of humanities, social science and natural science disciplines in combination with strong professional schools in education, law, management, nursing and social work.

In analyzing where distinctive excellence would lie for the University, the Council concluded that it would be found in the quality of its educational programs, in its personal service to students,

and in a reaffirmation of its traditional value and strengths. As heir to the Jesuit tradition, Boston College places liberal education at the center of its concerns; its commitment to a core curriculum is its most enduring effort to implement its philosophy of liberal learning. The Council re-asserted this commitment and called for a sharpening of the rationale for the core, an examination of the quality of core courses and the most effective use of the best teachers in the core.

The Council was aware that, while the University's commitment to under-graduate education had been firmly established during its 120-year history, the role of graduate education was only now moving towards full maturation and integration. While deferring detailed discussion to the special committee studying graduate education, the Council did propose that excellence in graduate education will not be achieved by attempting to do everything, but by concentrating resources in programs where a sound plan for achieving excellence exists.

A university of distinction must have a distinguished faculty. The primary expectation of the Boston College faculty is that they will be faithful to the Jesuit tradition of excellent teaching. This implies going beyond the desire to stimulate intellectual growth to a concern for the personal development of students. It also assumes that faculty will have a broad perspective on liberal education and be able to transcend their disciplines and specializations to deal with more general intellectual and moral concerns. The University has an obligation to evaluate instruction to insure that teaching is superior, that courses are challenging and that excellent teaching is recognized and rewarded.

The research productivity of Boston College faculty has grown steadily in recent decades and an increasing number have achieved distinction in their fields. These accomplishments have attracted other research-oriented faculty and have strengthened research in graduate programs. Simultaneously, the University has enlarged its support of faculty research. Steady, serious, and widely recognized research that advances knowledge should be supported, both for the vitality it adds to teaching and the strength it adds to the University's scholarly reputation.

Worthy of special safeguarding is the well-established spirit of faculty collegiality within departments and among faculty in general. This constructive atmosphere and the University's

balance of traditional disciplines and professional expertise should be exploited by promoting greater collaboration among faculty in different schools.

The increasing attractiveness of Boston College provides an opportunity to enroll a higher proportion of exceptionally talented students. The University should seek to become the first choice for the majority of academically talented students seeking an education in a Catholic environment. A student body enriched by a high proportion of excellent students will challenge Boston College to assure itself that its programs and courses meet high and rigorous standards of quality.

The strength of the faculty, the quality of students and the rigor of programs are inextricably linked. A strong faculty draws students who expect challenging courses. Each of these trends--superior faculty, talented students, rigorous programs--have been firmly established in recent years; in concert, they have created a spiraling effect towards a higher level of academic excellence. The Council feels strongly that the University can build on this dynamism to become a significantly stronger academic institution in the 1990s.

CATHOLIC AND JESUIT IDENTITY Perhaps the most significant challenge for Boston College in the 1990s will be a redefinition and renewed commitment to its religious mission. Boston College has always been characterized by a set of Christian values that enrich and strengthen the university community. A sense of Christian hope, a recognition of the dignity of the individual and a supportive personal environment are visible and vital elements of the campus environment that make it a special place in which to learn, to teach and to grow.

As a university founded and sponsored by the Society of Jesus, Boston College is heir to a vision of humanism that respects the integrity and worth of every academic discipline and the autonomy and cultural value of every human art. It is a humanism that values religious faith and faith's interactive relevance to civilization and that seeks not simply knowledge, but a form of understanding that leads to personal change and commitment.

The Council views the Jesuit and Catholic character of Boston College as one of the distinctive characteristics of the education it offers. To retain contact with its inspiration foundation, the University must be vigorous in its recruitment of Jesuits. Similarly, in the recruitment of faculty in general, while continuing to focus on teaching and research potential and on the rich diversity of ideas and opinions that create a vibrant university environment, it should also prize qualities that will support the distinctive Catholic and Jesuit character of Boston College.

As in past eras, the curriculum should be the primary, visible statement of the distinctive mission of the University. While there is no desire to return to a single methodology or a rigidly systematic view of human existence in core offerings in theology or philosophy, these disciplines have a special role in assisting students in exploring the meaning of human existence. Research and teaching in philosophy and theology should be vigorous and effective, and these disciplines should be noted for their contribution to other disciplines and to professional education. Concern for values should extend beyond theology and philosophy faculties to create an intellectual environment in which perennial as well as contemporary religious and moral issues can be raised naturally and explored seriously.

There should be ample opportunities for worship and for the personal religious development of students, faculty and staff. In such a setting, Boston College should emerge as a preeminent center of Catholic intellectual activity, where the Catholic tradition is rigorously studied and where contemporary issues facing the Catholic Church find scholarly exploration.

ENRICHING INTELLECTUAL AND PERSONAL ENVIRONMENT

Throughout its discussions, the Council became increasingly aware of the powerful impact the campus environment has on the education of Boston College students. The structure and mores of this environment can mold the personal values of students as much as formal classroom activities: as a consequence, care must be taken to insure that life outside the classroom promotes the distinctive goals of the University.

Students have a powerful influence on one another, both academically and personally. Acknowledging the significance of peer learning, the University should aim at greater diversity within its student body, for example, higher proportions of international, Hispanic, Black and Asian students. While it seeks to enroll a more talented and diverse student body, Boston College should continue to attract students with special leadership ability, with a strong interest in service, or with other qualities that can enrich the student community. The composition of the faculty should also reflect this diversity, not only to broaden the faculty, but also to provide the environment necessary to draw and serve a diverse student population.

Without diminishing the spirit of community and congeniality that makes Boston College attractive to so many students, the University should place increasing emphasis on the intellectual and aesthetic dimensions of campus life. Similarly, the campus environment should support the University's goal of inspiring graduates to use their talents in the service of others by being a place where students, faculty and staff can, with the support of the University, lead genuinely self-giving and fulfilling lives of service.

APPENDIX C

1990 TAMS REPORT
1989 VANASSE HANGEN BRUSTLIN, INC. STUDY

DRAFT

TRAFFIC IMPACT STUDY

Boston College Law School
Newton, Massachusetts

May 1989

Vanasse Hangen Brustlin, Inc.

TRAFFIC IMPACT STUDY

BOSTON COLLEGE NEWTON CAMPUS

Newton, Massachusetts

Prepared for Boston College
Newton, Massachusetts

Prepared by Vanasse Hangen Brustlin, Inc.
Consulting Engineers & Planners
60 Birmingham Parkway
Boston, MA 02135

May 1989

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EXECUTIVE SUMMARY

This study has been conducted to determine the traffic impact of potential development on the Boston College Newton Campus located off Centre Street in Newton, Massachusetts. This study was undertaken to satisfy an agreement between Boston College and the Newton Planning and Development Board. As outlined in the Board's discussion of May, 1988, this study analyzes the traffic impact of a 500-bed dormitory if development were to occur. The study also addresses possible measures to improve traffic flow in the area. A design year of 1992 was chosen based on an estimate of the earliest possible date of occupancy if construction was planned.

GENERAL

Development on the Boston College Newton Campus is in the earliest stages of consideration. If a 500-bed dormitory is constructed it will have little or no impact on the surrounding street system.

EXISTING CONDITIONS

The highest volumes in the study area are found on Centre Street which carries 24,000 to 25,000 vehicles per day. Approximately 8 percent occur during the peak hour. The lowest volumes are found on Blake Street which carries 415 vehicles per day.

A review of accident data between January, 1987 and December, 1988 revealed that the majority of accidents occurred along Centre Street. Of these accidents none were reported as occurring at the Boston College main driveway.

BACKGROUND TRAFFIC GROWTH

Based on information provided by city of Newton officials, a 2 percent annual growth factor was applied to the existing through traffic along Centre and Cabot Streets to project the 1992 horizon year traffic conditions.

SITE TRAFFIC

Site traffic was generated based on the potential development of a 500-bed dormitory on the site. Based on ITE trip generation rates and a net student increase of 250 students, the development could produce 45 vehicles trips (40 entering, 5 exiting) during the morning peak hour and 30 vehicle trip (10 entering, 20 existing) during the evening peak hour.

Based on existing traffic patterns approximately 30 percent of the site-generated traffic will be oriented to/from the north and 55 percent to/from the south along Centre Street. The remaining 15 percent is dispersed evenly among Cotton Street, Cabot Street and Mill Street.

PARKING

It is anticipated that if the dormitory is constructed an additional 93 to 162 parking spaces will be required. Boston College will adhere to parking requirements set forth by the city of Newton Zoning Ordinance with regard to quantity and location.

TRAFFIC OPERATIONS

Roadway link analysis reveals that Centre Street will continue to operate at as much as 87 percent of capacity (level-of-service E) under both 1992 No-Build and Build conditions. The remaining streets will operate at level-of-service B or greater.

Under 1992 No-Build conditions, the unsignalized intersections along Centre Street will experience little or no change in level of service when compared to existing levels of service. Under 1992 Build conditions levels of service remain the same as under 1992 No-Build conditions.

The signalized intersections of Centre Street, Cabot Street and Sargent Street will operate at level-of-service F during the PM peak hour under both 1992 No-Build and Build conditions. The intersection of Centre Street and Ward Street will operate at level-of-service E during the evening peak hour under both conditions. During the AM peak hour both intersections will operate at desirable levels of service.

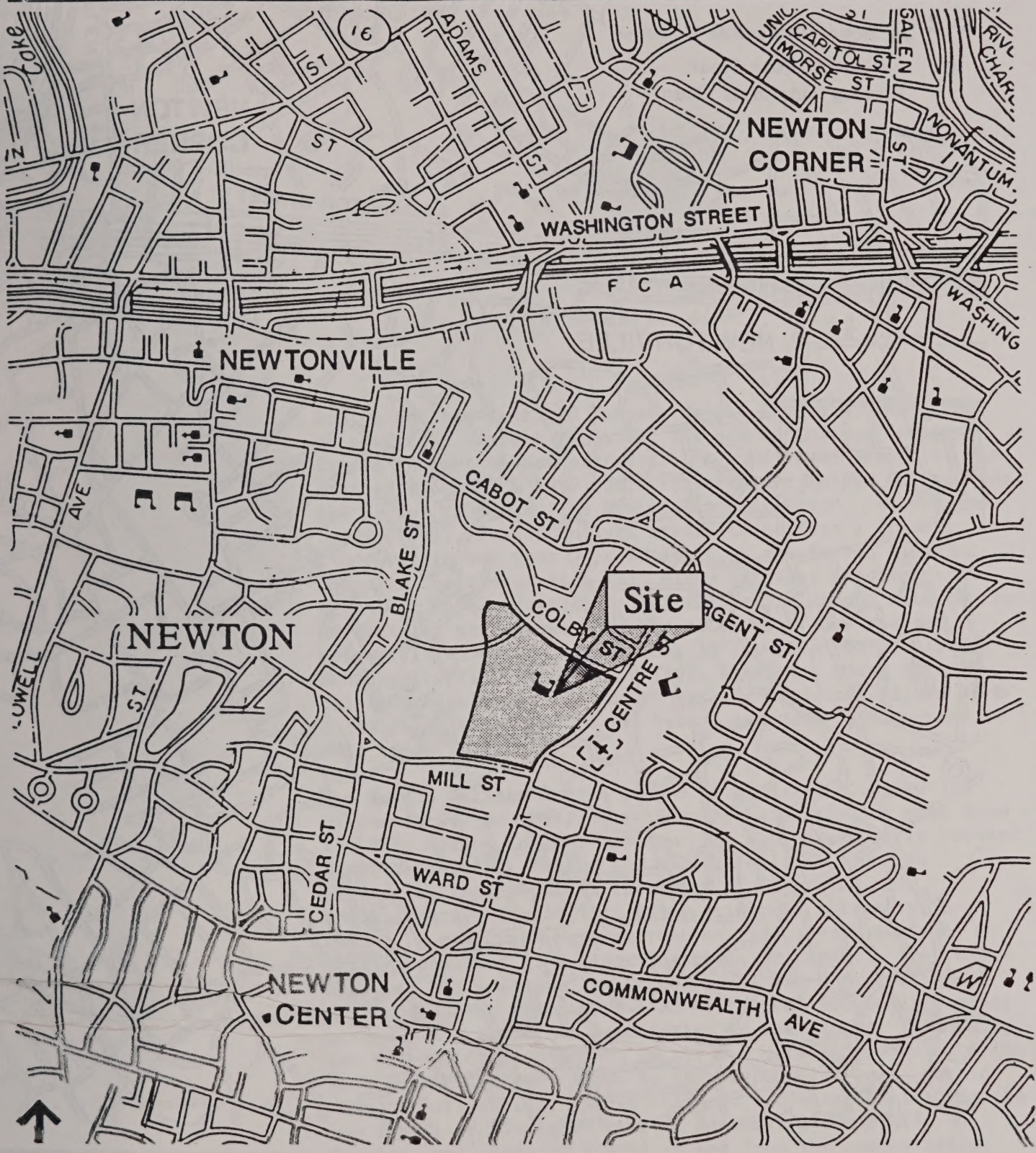
ALTERNATIVES ANALYSIS

Several improvements which could enhance traffic flow along Centre Street were analyzed. They include:

- Widening Centre Street to four-lanes.
- Realignment and signalization of the intersections of the Boston College Main driveway and Centre Street and Cotton Street and Centre Street.
- Installing a left-turn-only line on northbound Centre Street at the Boston College Main driveway.
- Improving sight-distance on the southeastern corner of Centre Street and Cotton Street.
- Opening the existing entrance to the Boston College Newton Campus on Mill Street.

CONCLUSIONS/RECOMMENDATIONS

- Although no commitment has been made to development, the traffic impact of a 500-bed dormitory would be negligible.
- VHB recommends the installation of a left-turn lane on Centre Street at the Boston College main driveway by restriping Centre Street.
- Shrubbery and trees should also be trimmed to enhance sight distance on the southeast corner of Cotton Street.
- The Boston College driveway on Mill Street could be opened with only a minimum increase in traffic on Mill Street.



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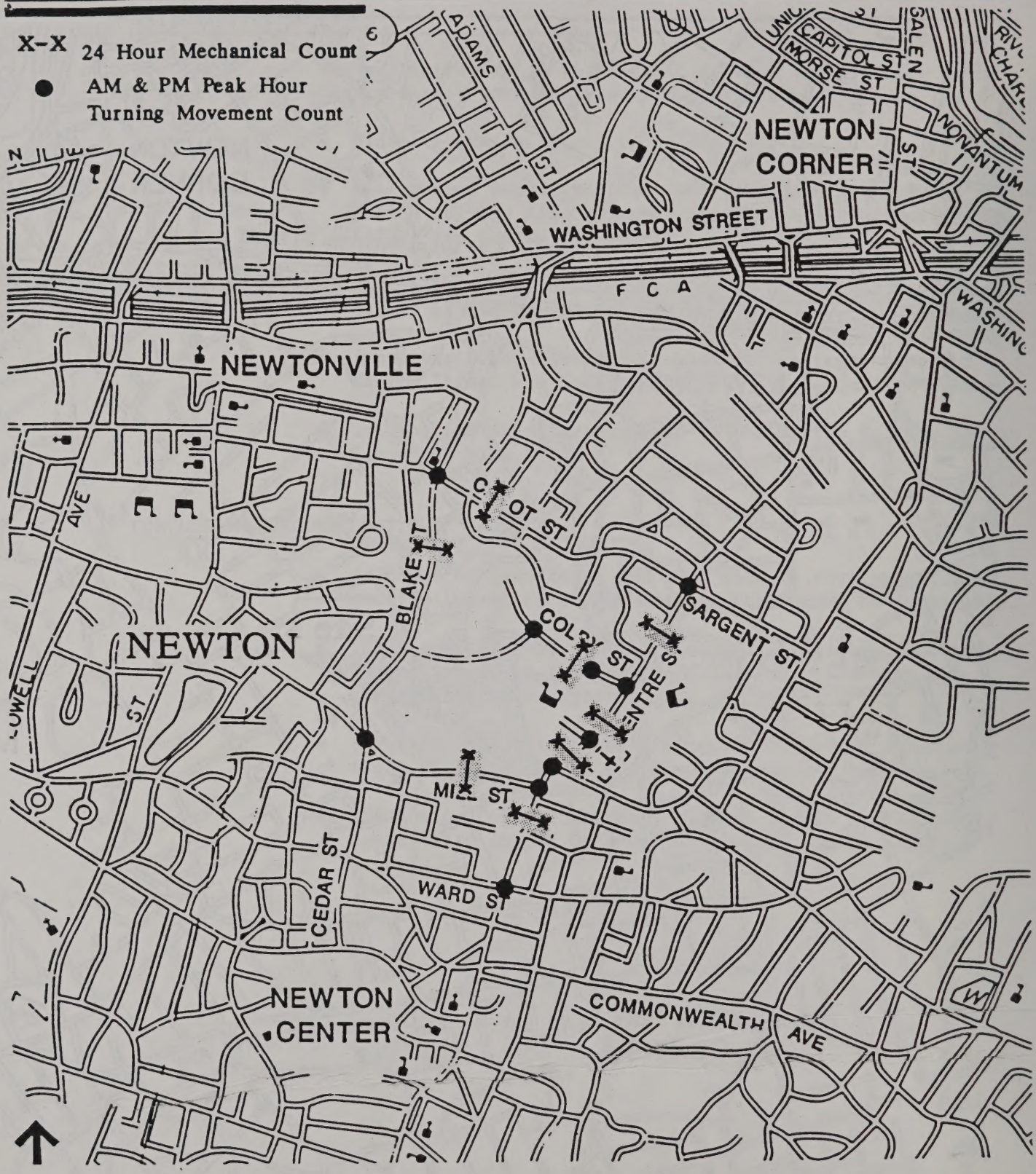
Site Location Map Figure 1



Vanasse Hangen Brustlin, Inc.

Data Collection Map Figure 2

INTRODUCTION

Boston College retained Vanasse Hangen Brustlin, Inc. (VHB) to conduct a traffic study for the Boston College Newton Campus in Newton, Massachusetts. A subdivision approval was granted on May 27, 1989 (date recorded) to Boston College for the Newton campus by the Newton Planning Board. As part of the approval, Boston College agreed to perform a traffic study within one year. As outlined by the Newton Planning Board in their decision, this study assesses the impact of potential future development of the Newton campus site on the surrounding street system. The study must also analyze potential geometric improvements in the area that could enhance traffic operations. These elements, along with a brief discussion on the future parking needs associated with potential development on the Newton campus, are discussed in this report.

The Boston College Newton campus is situated along Centre Street in Newton, Massachusetts, approximately one mile from the main Boston College campus. The Newton campus is bounded by Centre, Colby, Blake, and Mill streets as shown in Figure 1. The campus is comprised of classroom and administrative facilities, dormitories, an infirmary, a chapel, a gymnasium, and recreation fields with surface parking provided at various locations on campus. The campus supports 800 graduate law school students, the majority of whom commute to the campus. An additional 800 undergraduate students are housed in dormitories on the campus. Generally, the undergraduate students do not own cars and commute to the main Boston College campus by shuttle bus, bicycle, public transit, or walking. In addition to students enrolled in the law school or living on campus, administrative staff, faculty, and visitors travel to and from the campus daily.

FIELD INVENTORY

A comprehensive field inventory of the site area was conducted during April and May 1989. The inventory consists of roadway geometry, traffic volume, and speed and safety data within the study area. The data was collected in the following manner:

- Automatic traffic recorder counts were conducted for a minimum of twenty-four hours at the following locations:

  -- Centre Street between Cabot Street and Colby Street

  -- Centre Street between Colby Street and Boston College Newton campus main driveway

  -- Centre Street between Cotton Street and Boston College Newton campus main driveway

  -- Centre Street between Cotton Street and Ward Street

  -- Colby Street between Rochester Road and Centre Street

  -- Cabot Street between Centre Street and Blake Street

  -- Blake Street between Cabot Street and Mill Street

- Manual turning movement counts were conducted at the following intersections during the morning and evening peak hours:

  -- Centre Street and Cabot Street

  -- Centre Street and Cotton Street

  -- Centre Street and Boston College Newton Campus main driveway

-- Centre Street and Colby Street

-- Centre Street and Mill Street

-- Centre Street and Ward Street

-- Colby Street and Rochester Road

-- Colby Street and Boston College Newton campus main driveway

-- Blake Street and Cabot Street

-- Blake Street and Mill Street

- Accident data for the study area roadways were obtained from the Newton Police Department for the most recent complete two-year period. (January, 1987 to December, 1988).

The study area is defined by the roadways surrounding the campus which include Centre, Cabot, Blake, and Mill streets (Figure 3). The study area also extends south along Centre Street to Ward Street. The Boston College Newton campus is located off of Centre Street approximately two miles north of Newton Center.

ROADWAY GEOMETRICS

Centre Street

Centre Street is the major roadway within the study area. Classified as a primary collector, Centre Street runs north and south connecting residential neighborhoods and business areas in Newton with major arterials such as Route 9 and Commonwealth Avenue with the Massachusetts Turnpike (I-90). Within the study area, Centre Street is a two-lane roadway with curbs and gutters. The trees and utility poles along the edge of the roadway are generally 1- to 4-feet from the curb. Land use abutting Centre Street within the study area is predominately residential. In addition to Boston College Newton campus, Centre Street also provides access to the Newton Country Day School and Mount Alvernia High School.

Colby Street

Colby Street is a two-lane, private way owned by Boston College which runs east/west connecting Centre Street and Rochester Road. Colby Street provides access to the northern side of the Newton campus as well as several residences. An undeveloped portion of Colby Street extends through Lot 3 and Edmunds Park terminating at Blake Street.

TABLE 1
TRAFFIC VOLUME SUMMARY*

Location	Direction	Morning Peak**	"K" Factor***	Evening Peak+	"K" Factor***	Average Daily Traffic*
Centre Street north of Ward Street	Northbound	1,015		860		12,385
	Southbound	765		1,000		12,035
	TOTAL	1,780	7.3%	1,860	7.6%	24,420
Centre Street north of Mill Street	Northbound	1,050		815		12,320
	Southound	825		1,140		12,970
	TOTAL	1,875	7.4	1,955	7.7	25,290
Centre Street south of Colby Street	Northbound	930		730		11,400
	Southbound	832		1,145		12,820
	TOTAL	1,765	7.3	1,875	7.7	24,220
Centre Street south of Cabot Street	Northbound	950		780		11,400
	Southbound	860		1,125		12,830
	TOTAL	1,810	7.5	1,905	7.9	24,230
Cabot Street west of Centre Street	Eastbound	270		165		2,015
	Westhbound	105		150		1,625
	TOTAL	375	10.3	315	8.7	3,640
Colby Street west of Centre Street	Eastbound	55		25		380
	Westbound	15		35		315
	TOTAL	70	10.1	60	8.6	695
Mill Street west of Centre Street	Eastbound	125		75		970
	Westbound	55		115		865
	TOTAL	180	9.8	190	10.3	1,835
Blake Street south of Cabot Street	Northbound	25		20		200
	Southbound	20		25		215
	TOTAL	45	10.8	45	10.8	415

* Automatic traffic recorder (ATR) counts performed by VHB in April and May 1989.
** Generally between 7:45 and 8:45 AM. Expressed in vehicles per hour.
*** Percent of daily traffic occurring during the peak hour.
\+ Generally between 5:00 and 6:00 PM. Expressed in vehicles per hour.

the south is restricted primarily by overhanging shrubbery and a wall on the southeast corner of the intersection. The horizontal alignment of Centre Street also restricts sight distance.

Centre Street and Mill Street

Centre Street and Mill Street form a T-type intersection. Pavement markings include a STOP bar and crosswalk on the Mill Street approach. Mill Street is divided by a double yellow centerline and has a single lane approach. The intersection is controlled by a STOP sign on the Mill Street approach.

Centre Street and Ward Street

Centre Street and Ward Street form a four-way intersection. A STOP bar is afixed in the eastbound approach. Double yellow centerlines are present on the three remaining approaches. The intersection is signalized.

Colby Street, Rochester Road, and Academy Way

At the four-way intersection of Colby Street, Rochester Road, and Academy Way, all approaches are single lane. There are no pavement markings or traffic control. The southern approach (Colby Street) is a gravel road. Access is restricted by a gate.

Blake Street, Cedar Street, and Mill Street

Blake Street, Cedar Street, and Mill Street form a four-way intersection. Cedar Street is approximately 23-feet wide with right and left turns channelized by a median. A STOP bar is present at this approach. Mill Street has two-lanes separated by a double yellow centerline. Blake Street has no pavement markings. The Cedar Street approach is STOP sign controlled. The remaining approaches have no traffic control.

Cabot Street, Blake Street, and Parkview Avenue

Cabot Street forms a four-way intersection with Parkview Avenue and Blake Street. The intersection has no traffic control, but has crosswalks at the Parkview approach and both legs of Cabot Street.

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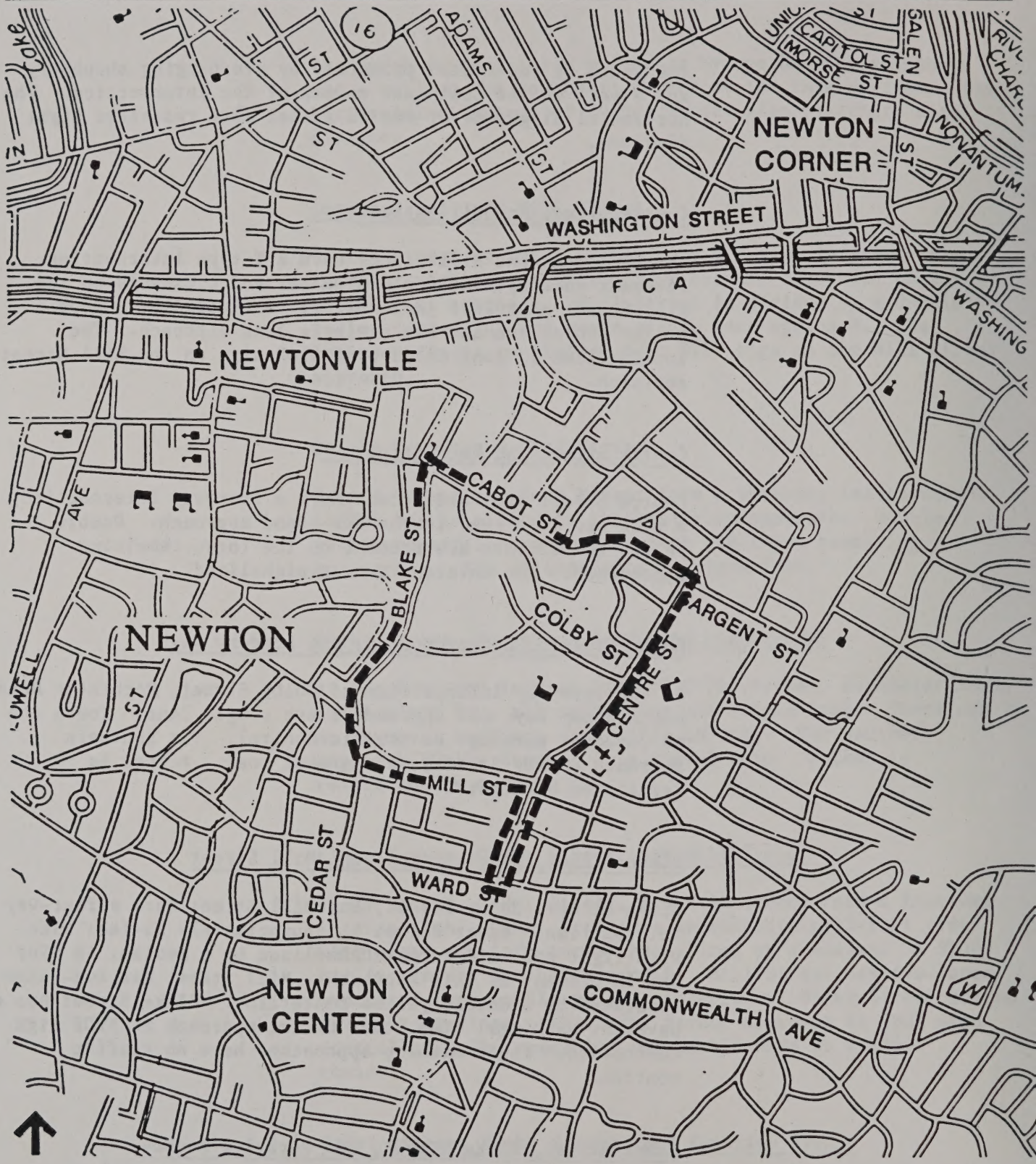

Vanasse Hangen Brustlin, Inc.

Study Area Map

Figure 3

OBSERVED TRAFFIC VOLUMES

Vanasse Hangen Brustlin, Inc. conducted 24-hour automatic traffic recorder counts on the study area roadways and peak period (7:00 to 9:00 in the morning and 4:00 to 6:00 in the afternoon) turning movement and classification counts on the study area intersections. Table 1 presents the results of the traffic count program. The daily traffic flows are presented in Figure 4 and the morning and evening peak-hour traffic volumes are illustrated in Figures 5 and 6, respectively.

As shown in the table, the highest volumes in the study area were measured along Centre Street. Centre Street has an average daily traffic (ADT) ranging from 24,000 to 25,000 vehicles per day. These volumes are characterized by a high percentage of through traffic traveling to and from the region's major arterials (i.e., I-90, Commonwealth Avenue, and Route 9). Considerably lower volumes were recorded on the remaining streets within the study area. The lowestdaily traffic volumes were recorded on Blake Street south of Cabot Street, which carries 415 vehicles per day. Typically, the morning and evening peak-hour volumes represent approximately 7.5 percent of the daily traffic on Centre Street and 8 to 11 percent on the remaining streets.

A distinct directionality of traffic flow is evident based on the data in Table 1. In the morning, northbound volumes on Centre Street are higher reflecting commuter traffic destined for the Massachusetts Turnpike (I-90). The reverse is true during the evening peak hour. On the remaining streets within the study area, the peak direction of flow is directed to and from Centre Street during the morning and evening peak hours, respectively.

Traffic operations along Centre Street were observed during both the morning and evening peak hours. During both peak periods, significant queuing along Centre Street was observed. In the morning, vehicle queuing was observed along northbound Centre Street stretching from the intersection of Centre Street and Cabot Street to Cotton Street. This condition, however, was only observed once. Normally, queuing at the Centre Street and Cabot Street signal ranged from ten to fifteen vehicles and dissipated quickly. In the evening, the southbound approach of Centre Street and Ward Street queued past the Boston College Newton campus main driveway extending Colby Street. The queue sustained for several minutes. Queuing on the side street generally did not exceed five to six vehicles. During the evening peak hour, vehicles exiting the Boston College Newton campus at the main driveway experienced considerable delays which resulted in queuing into the campus. This apparently is the result of congestion along Centre Street and the absence of acceptable gaps in the main stream traffic flow.

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Cabot Street

Cabot Street within the study area runs east/west from its intersection with Blake Street and Parkview Avenue to Centre Street. Cabot Street is a two-lane, local street separated by a double yellow centerline. Land use along Cabot Street is mainly residential.

Blake Street

Blake Street is a residential street which marks the western boundary of the study area. Blake Street runs north/south, connecting Cabot Street and Mill Street. Blake Street is approximately 24-feet wide with no pavement markings. A section of Blake Street adjacent to Edmunds Park is in disrepair and appears to be unmaintained.

Centre Street, Cabot Street, and Sargent Street

The junction of Centre Street, Cabot Street, and Sargent Street creates a four-way intersection. Centre Street at the intersection slopes upward from north to south. Right turns onto Centre Street from Sargent Street are channelized by a large, landscaped "pork chop" island. Southbound left turns from Centre Street onto Sargent Street also use this route. A residential driveway is located on the southeast corner of the intersection. All four approaches to the intersection consist of a single lane. The intersection is signalized.

Centre Street and Colby Street

Centre Street and Colby Street form a T-type intersection. Colby Street consists of two lanes divided by a grass median. There is no traffic control at this intersection.

Centre Street and Boston College Newton Campus Main Driveway

Centre Street intersects with the Boston College Newton campus main driveway to form a T-type intersection. The driveway is 18-feet wide with no pavement markings or control. This driveway serves as the primary access to and egress from the Boston College Newton campus.

Centre Street and Cotton Street

Centre Street and Cotton Street form a T-type intersection with the Boston College Newton campus main driveway a short distance to the north. The intersection is STOP sign controlled with a single lane approach. Sight distance to

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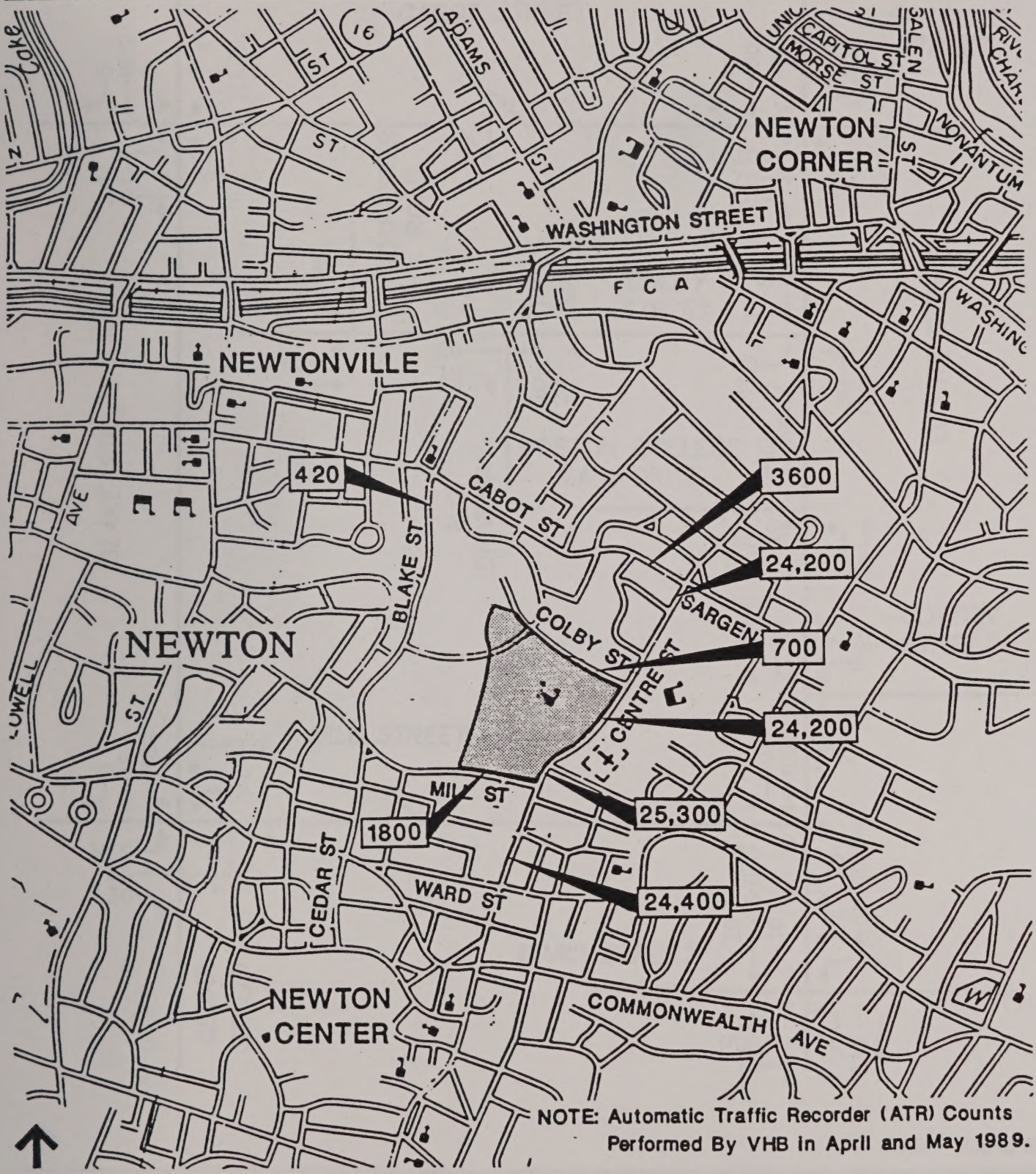
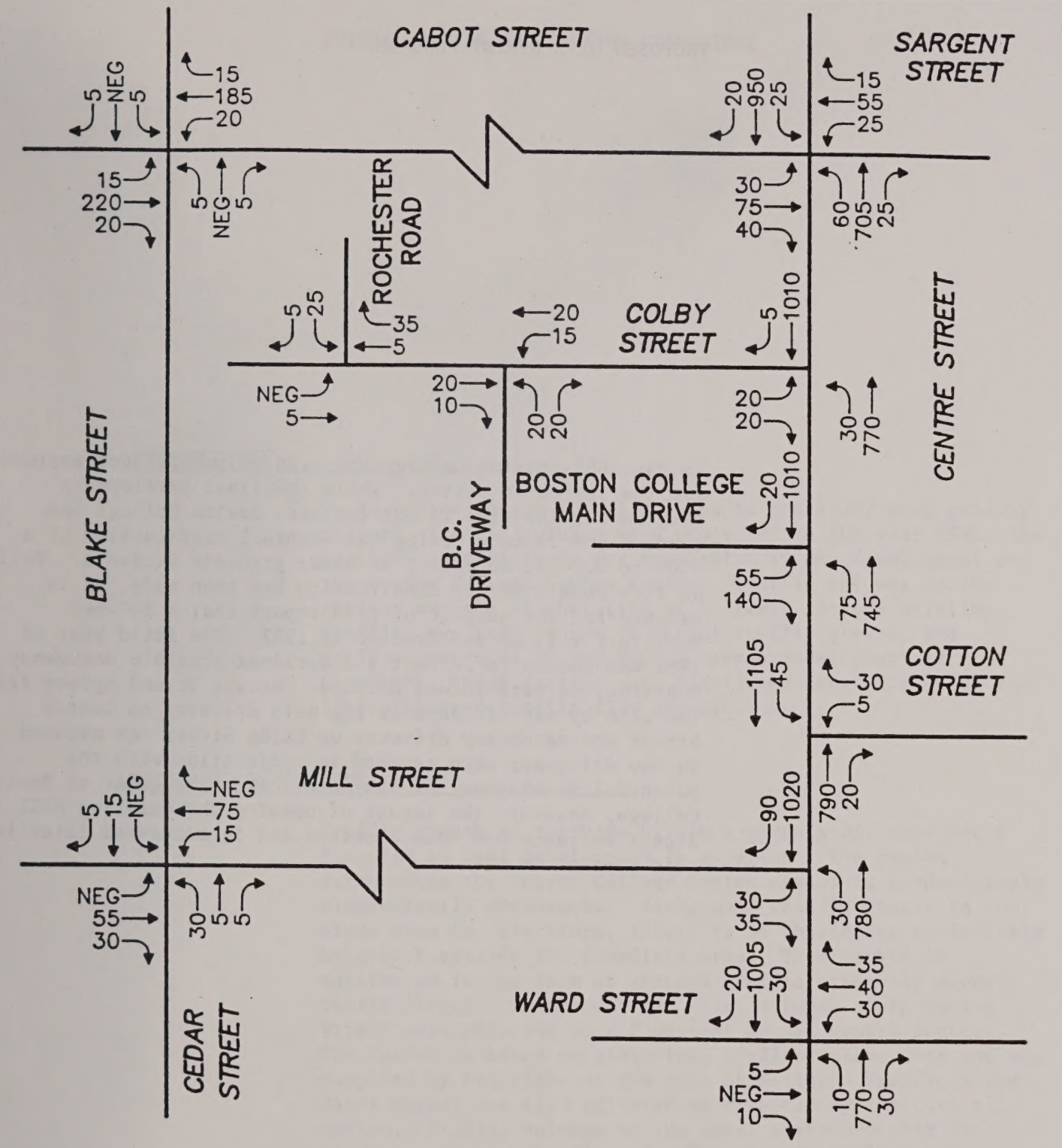


Vanasse Hangen Brustlin, Inc.

Average Daily
Traffic Volume Map

Figure 4



Vanasse Hangen Brustlin, Inc.

1989 Existing
PM Peak Hour
Traffic Volumes

Figure 6

PROPOSED DEVELOPMENT PROGRAM

In May 1988, Boston College was granted subdivision approval for the campus in Newton. While the final development program for the site is not certain, Boston College has studied and is considering the eventual construction of a 400- to 500-bed dormitory to house graduate students. While no firm commitment to construction has been made, it is assumed for the purpose of this report that a 500-bed dormitory will be constructed by 1992. The Build year of 1992 was chosen to reflect the earliest possible occupancy if construction were indeed pursued. Access to and egress from the site by way of the existing main driveway on Centre Street and secondary driveway on Colby Street was assumed. No new driveways were assumed in conjunction with the potential development of the site. At the request of Boston College, however, the impact of opening the existing Mill Street entrance has been examined and is addressed later in this report.

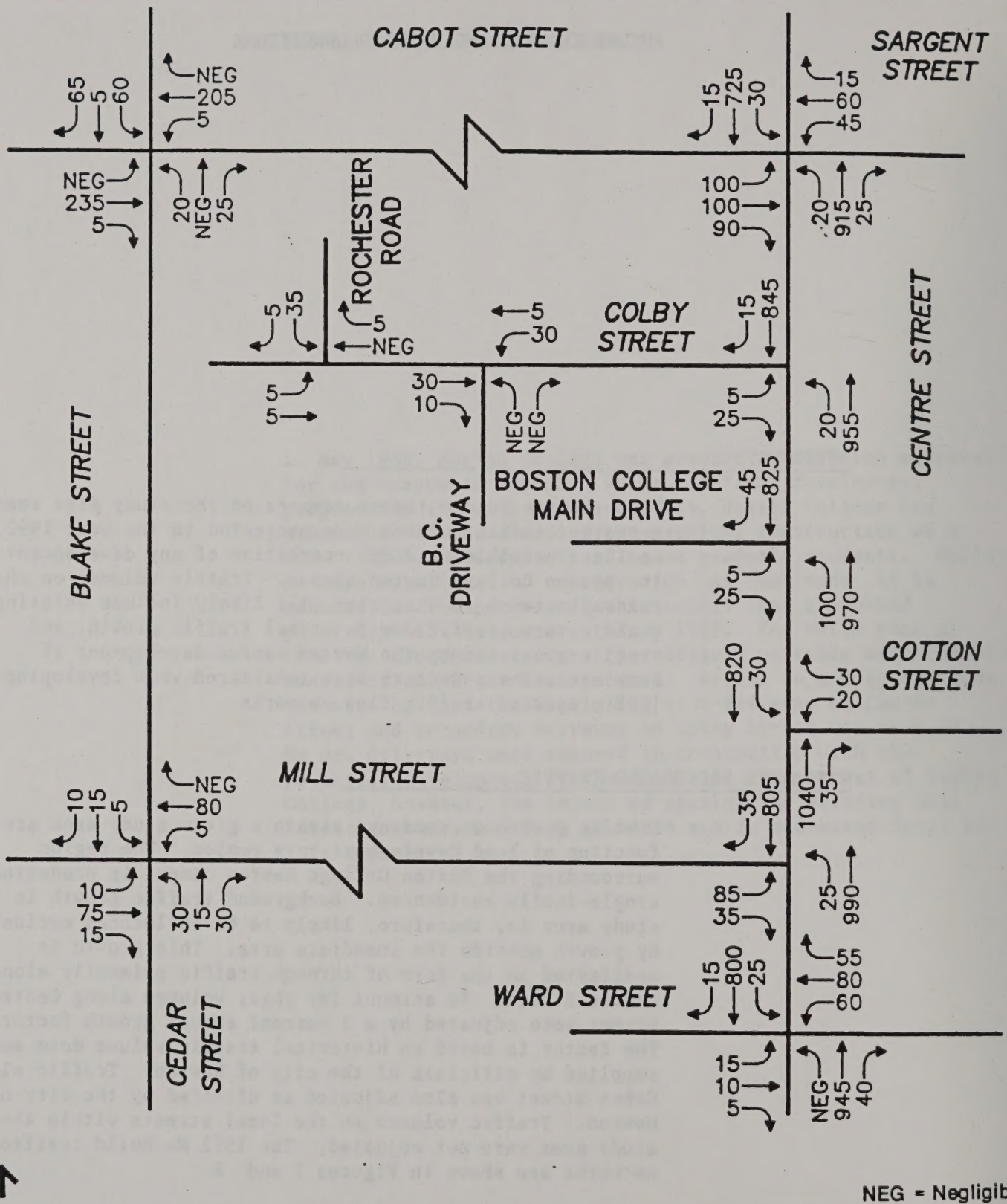
FUTURE TRAFFIC AND PARKING CONDITIONS

INTRODUCTION

To determine future travel demands on the study area roadway network, traffic volumes were projected to the year 1992, the earliest possible date for completion of any development on the Boston College Newton campus. Traffic volumes on the roadway network at that time will likely include existing traffic, new traffic due to normal traffic growth, and traffic generated by the Newton campus development if complete. These factors were considered when developing the 1992 projected traffic flow networks.

ESTIMATED BACKGROUND TRAFFIC

Traffic growth on roadways within a given study area are a function of land development in a region. The region surrounding the Boston College Newton campus is predominately single-family residences. Background traffic growth in the study area is, therefore, likely to be influenced exclusively by growth outside the immediate area. This growth is manifested in the form of through traffic primarily along Centre Street. To account for this, volumes along Centre Street were adjusted by a 2 percent annual growth factor. The factor is based on historical traffic volume data and was supplied by officials of the city of Newton. Traffic along Cabot Street was also adjusted as directed by the city of Newton. Traffic volumes on the local streets within the study area were not adjusted. The 1992 No-Build traffic networks are shown in Figures 7 and 8.



NEG = Negligible

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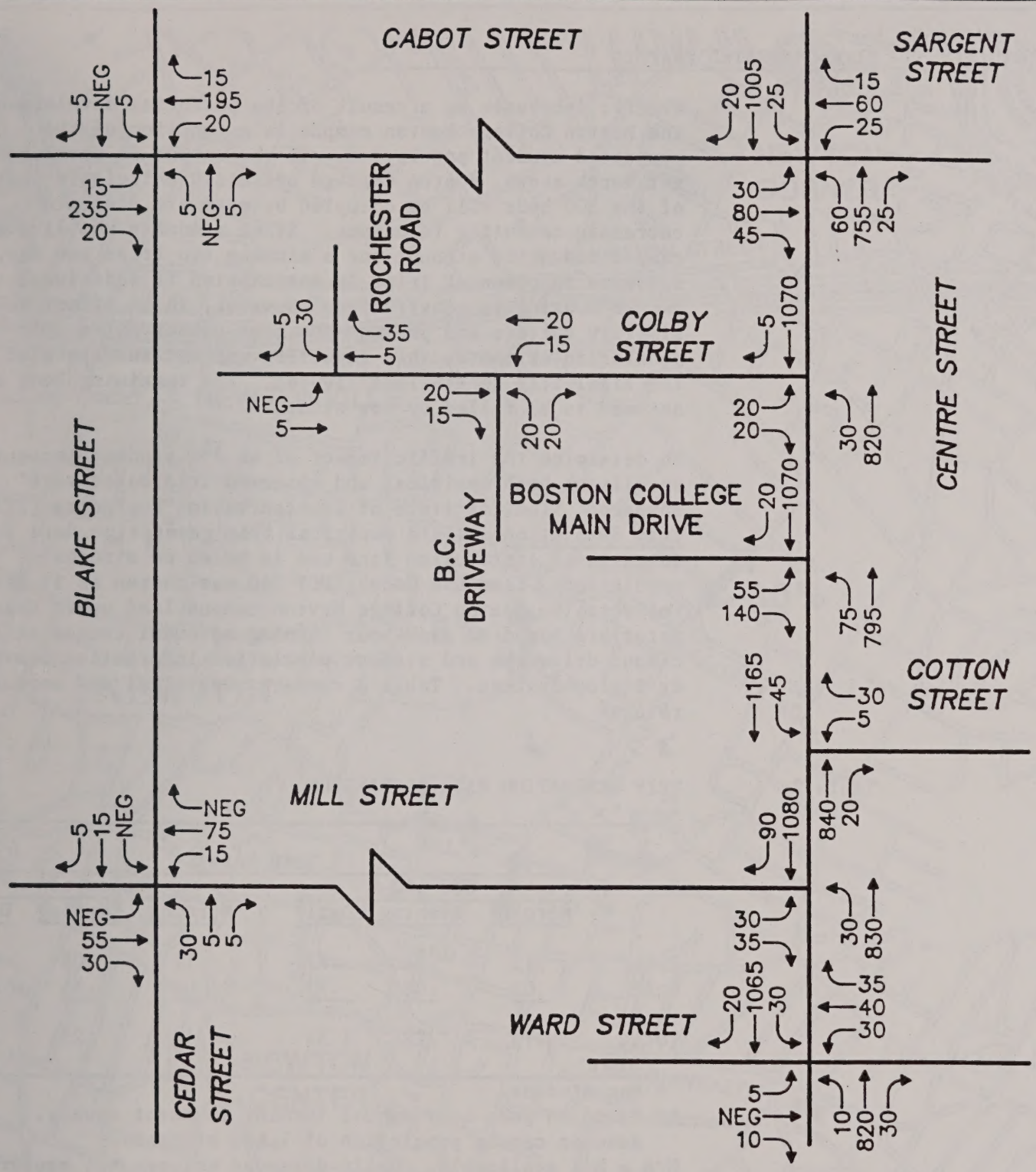
1992 No-Build
AM Peak Hour
Traffic Volumes

Figure 7



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1992 No-Build
PM Peak Hour
Traffic Volumes

Figure 8

SITE-GENERATED TRAFFIC

Traffic increases as a result of the potential development on the Boston College Newton campus is a function of the projected student population. If the campus is developed as set forth above, Boston College officials anticipate that 250 of the 500 beds will be occupied by graduate students currently commuting to campus. Since students who live off campus and drive account for a minimum two trips per day, a decrease in commuter trips is anticipated if additional on-campus housing is constructed. However, in an effort to simplify matters and present the most conservative trip generation estimate, this reduction was not incorporated into the final trip generations figures. The remaining beds are assumed to be filled by new students.

To determine the traffic impact of an 250-student increase in enrollment both empirical and observed trip rates were compared. The Institute of Transportation Engineers (ITE) Trip Generation[1] lists empirical trip generation data for educational institution land use is based on student population. Land Use Code (LUC) 540 was chosen as it best reflects the Boston College Newton campus land use. Measure rates are based on peak-hour turning movement counts at the campus driveways and student population information provided by Boston College. Table 2 compares empirical and measured rates.

Table 2 TRIP GENERATION RATE COMPARISON

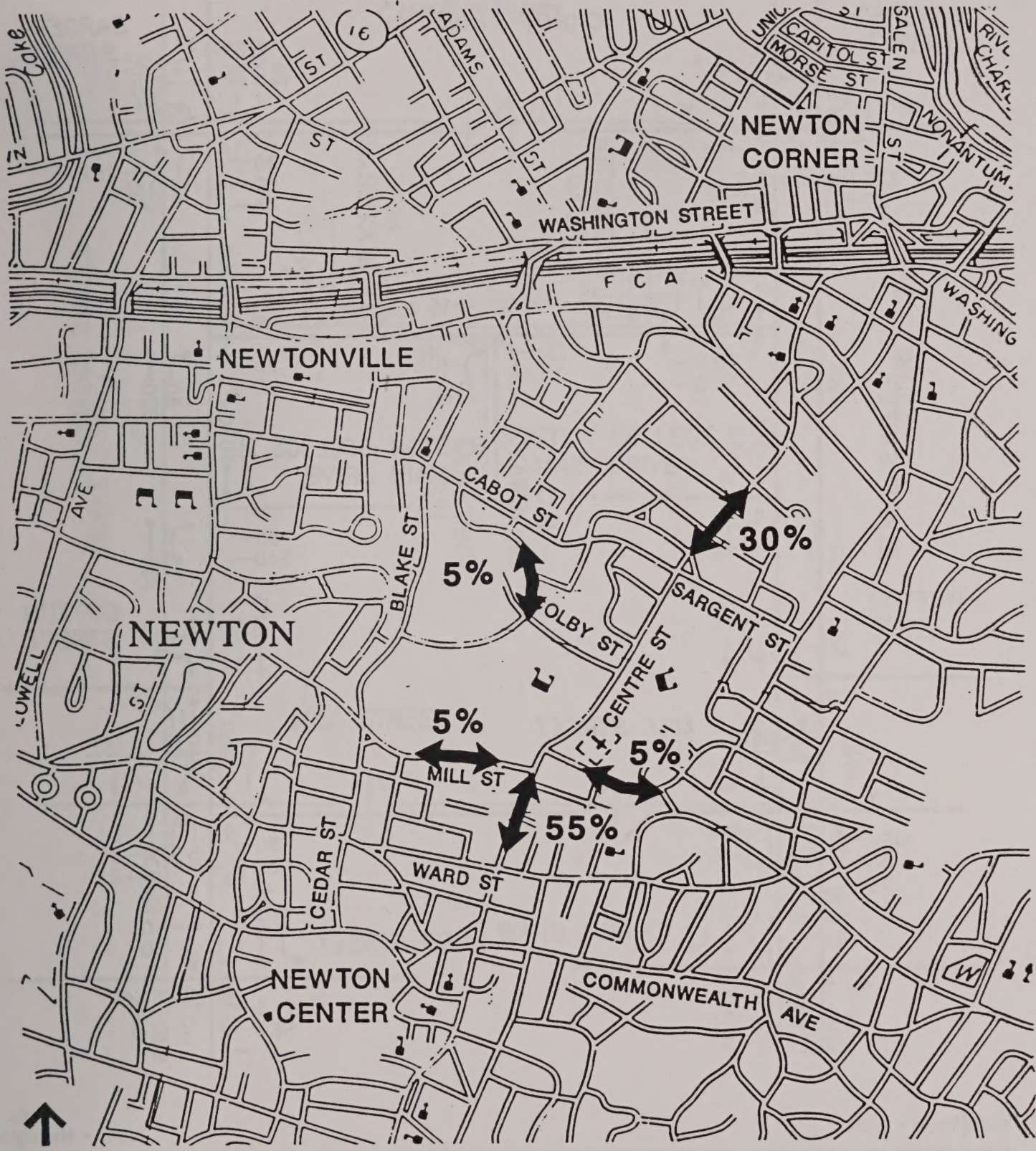
	Trip Rate*					
	LUC 540			Measured**		
	Morning	Evening	Daily	Morning	Evening	Daily
Enter	.15	.04	.77	.12	.08	N/A
Exit	.03	.08	.77	.02	.15	N/A
TOTAL	.18	.12	1.54	.14	.23	N/A

* Per student.

** Based on peak-hour manual turning movement counts. Assumes campus population of 1,600 students.

N/A = Not applicable. Daily driveway volumes not measured.

1 Trip Generation; Institute of Transportation Engineers; Fourth Edition (1987)



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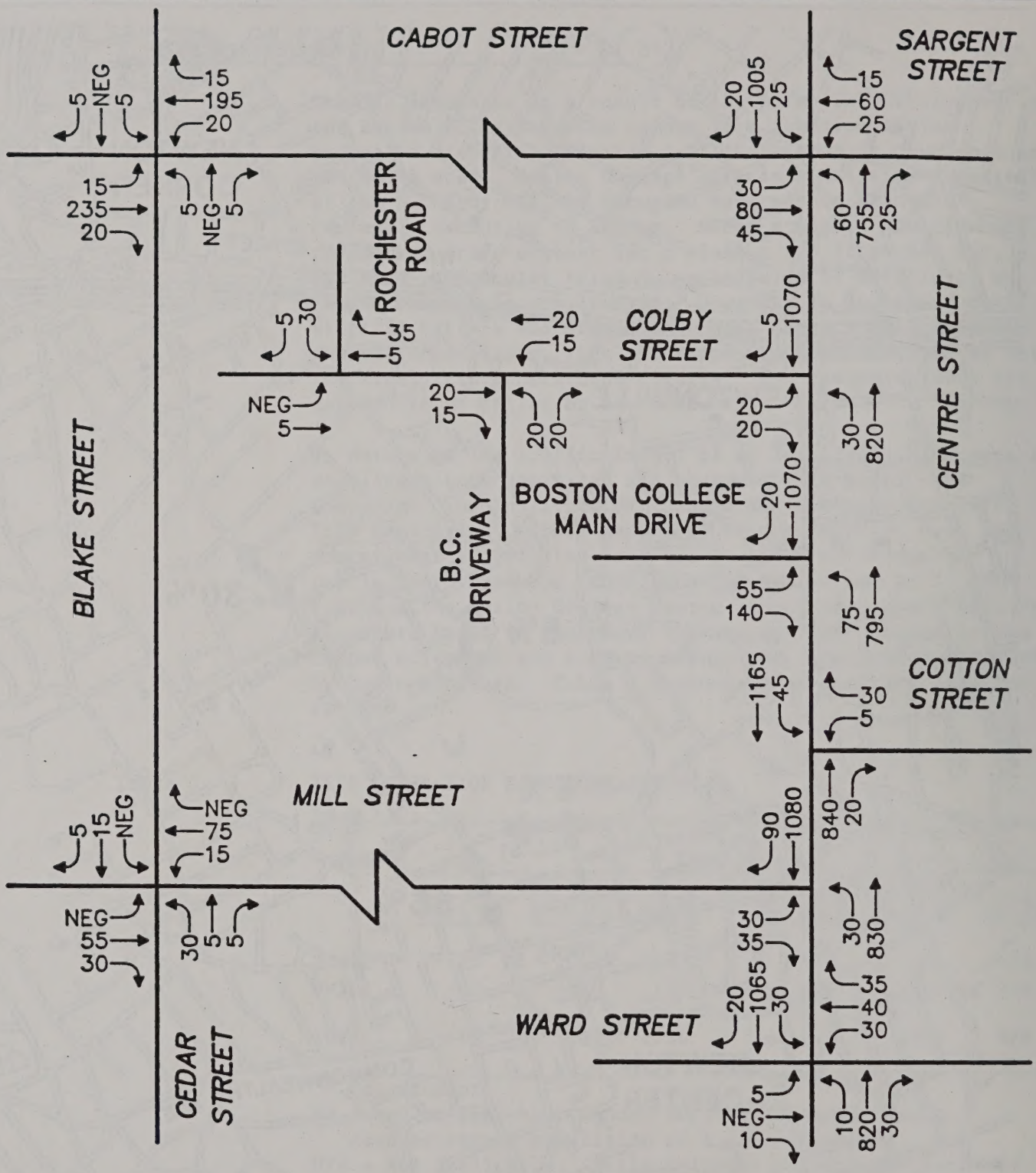
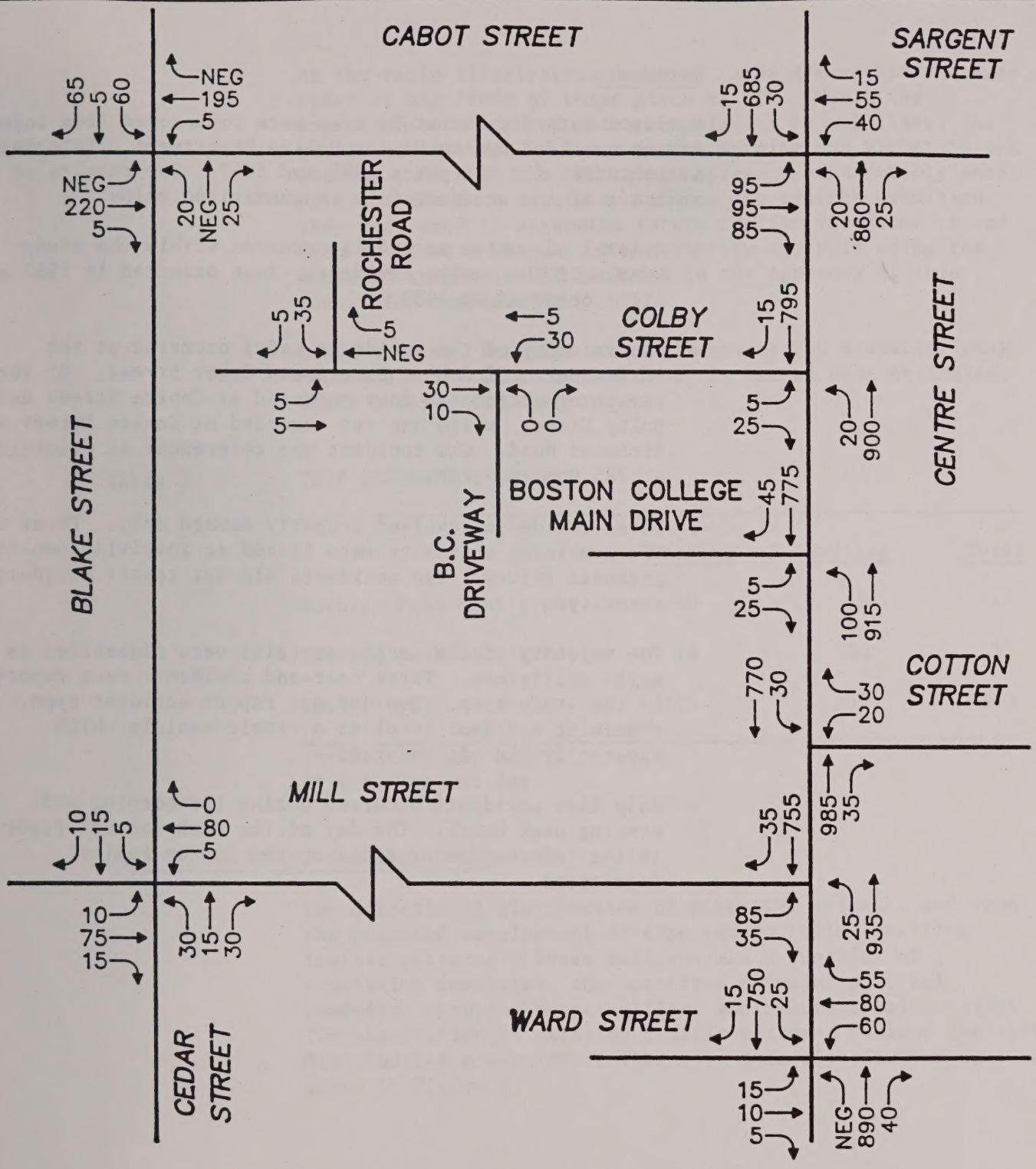
Trip Distribution Map

Figure 9



1992 No-Build
PM Peak Hour
Traffic Volumes

Figure 8



NEG = Negligible

Vanasse Hangen Brustlin, Inc.

1989 Existing
AM Peak Hour
Traffic Volumes

Figure 5

Accidents

Accident data for the study area were researched from information provided by the Newton Police Department. Information was obtained for the years 1987 and 1988. The results of the analysis of the accident data is summarized below:

- A total of twelve accidents occurred within the study area. Of the twelve accidents, four occurred in 1987 and eight occurred in 1988.

- The majority of the accidents (six) occurred at the intersection of Centre Street and Cabot Street. Of the remaining accidents, four occurred at Centre Street and Colby Street, while one was recorded at Centre Street and Richmond Road. One accident was referenced as occurring at 785 Centre Street.

- Seven accidents involved property damage only. Three of the remaining accidents were listed as involving non-fatal personal injury. Two accidents did not report accident severity.

- The majority of the accidents (six) were classified as angle collisions. Three rear-end accidents were reported in the study area. Two did not report accident type. The remaining accident involved a single vehicle which apparently ran off the road.

- Only five accidents occurred during the morning and evening peak hours. The day of the week was not reported in the information provided by the Newton Police Department.

As the table illustrates, measured rates are within the same order of magnitude of those given by ITE. While the empirical and measured rates are similar in magnitude, the measured trip rate is lower in the morning and higher in the evening. Because the ITE rates represent considerably more data and are more likely to reflect the average condition, they were used to determine future traffic increases to and from the Newton campus. A sensitivity analysis using the measured trip rates is included in the Appendix of this report for comparison.

Based on a net increase in enrollment of 250 students, peak hour and daily trips to and from the campus were estimated. Table 3 lists the results.

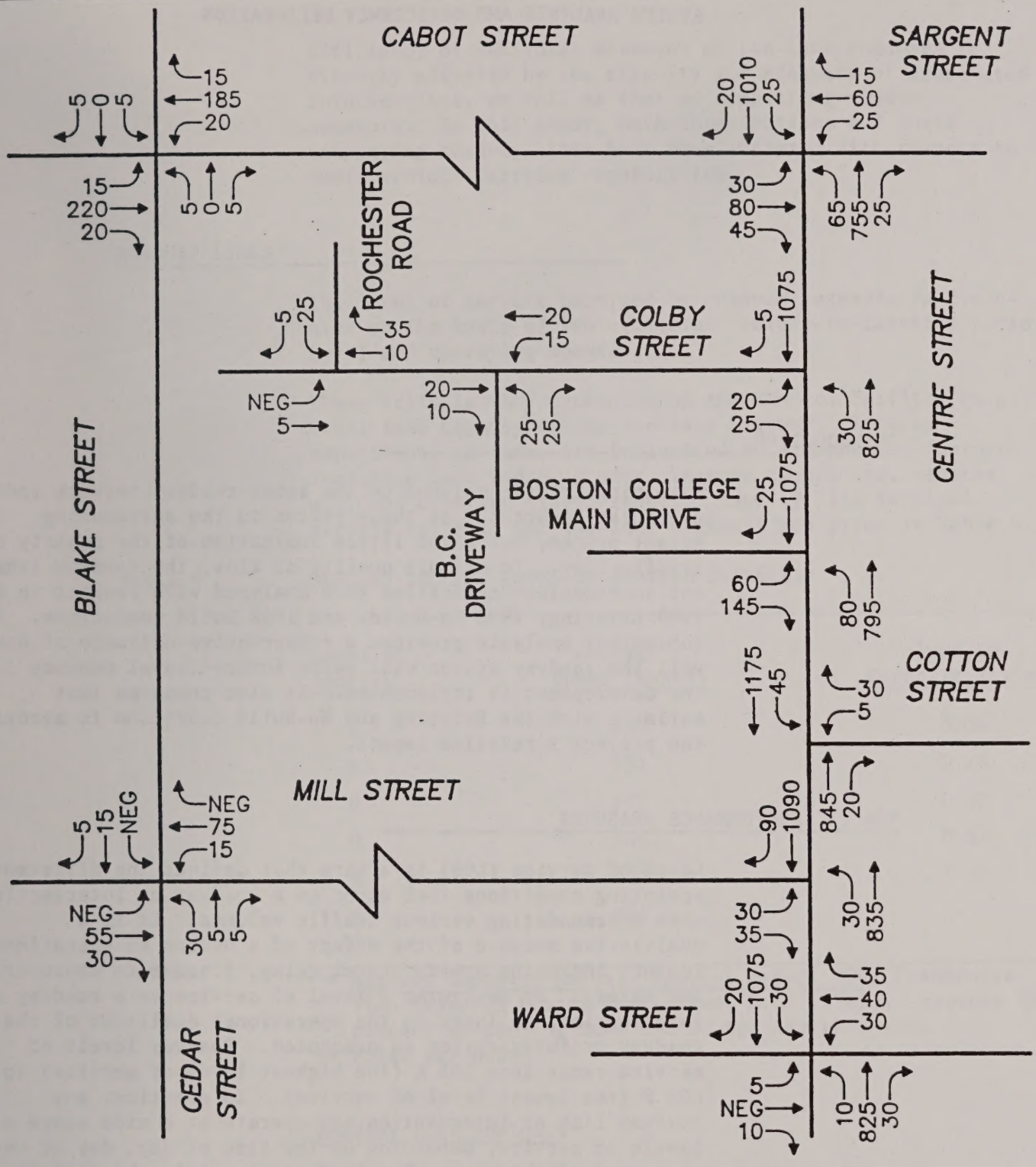
Table 3 TRIP GENERATION SUMMARY

	Entering	Exiting	Total
Morning Peak Hour (vpd)	40	5	45
Evening Peak Hour (vpd)	10	20	30
Daily (vph)	195	195	390

* Vehicles per hour.
** Vehicles per day.

TRIP DISTRIBUTION AND ASSIGNMENT

The directional distribution of generated trips to and from the proposed development is expected to follow existing traffic patterns. These patterns are a function of population densities, the locations of major arterial roadways, shopping opportunities, and recreational activity. The observation of existing traffic patterns yielded the trip distribution presented in Table 4. This distribution is also shown in Figure 9.



NEG = Negligible

Vanasse Hangen Brustlin, Inc.

1992 Build
PM Peak Hour
Traffic Volumes

Figure 11

INTRODUCTION

Examining traffic volumes on the local roadway network indicates the importance of these routes to the surrounding street system, but gives little indication of the quality of traffic flow. To measure quality of flow, the roadway link and intersection capacities were analyzed with respect to the 1989 Existing, 1992 No-Build, and 1992 Build conditions. The subsequent analysis provides a conservative estimate of how well the roadway system will serve future travel demands if the development is implemented. It also compares that estimate with the Existing and No-Build condition to assess the project's relative impact.

TRAFFIC PERFORMANCE MEASURES

Level of service (LOS) is a term that defines the different operating conditions that occur on a roadway or intersection when accommodating various traffic volumes. It is a qualitative measure of the effect of a number of operational factors including speed, travel delay, freedom to maneuver, and safety. By assigning a level of service to a roadway or intersection, an index to the operational qualities of the roadway or intersection is presented. Roadway levels of service range from LOS A (the highest level of service) to LOS F (the lowest level of service). In practice, any roadway link or intersection may operate at a wide range of levels of service, depending on the time of day, day of week, or period of the year. Level-of-service A is the optimum condition, representing free-flowing roadway operating conditions. Level-of-service E, on the other hand, represents an unstable flow condition where excessive congestion and long delays are prevalent. Level-of-service D represents tolerable conditions under peak-hour traffic flow conditions.[4]

[4] Transportation and Traffic Engineering Handbook; Institute of Transportation Engineers, (1975).

Efficiency of vehicular movement on two-lane roadways is directly affected by the capacity and adequacy of associated intersections, as well as that of connecting roadway segments. In this study, both intersections and their connecting roadway links have been analyzed with respect to their vehicle carrying capabilities.

ROADWAY LINKS

The level of service provided by roadway segments is evaluated on the basis of two criteria: volume-to-capacity ratio (v/c) and operating speeds.

These criteria vary depending on the type of facility (e.g., multi-lane highway versus two-lane highway. Roadway capacities, in turn, are influenced by a number of factors including lane width, grades, lateral clearances, vehicle mix, and observed travel speeds. Roadway link level-of-service criteria for two-lane highways are given in Table 6.

Table 6 ROADWAY SEGMENT LEVEL-OF-SERVICE CRITERIA*

Level of Service	Average Speed (mph**)	Volume-to-Capacity Ratio
A	>54	0.04
B	>51	0.16
C	>48	0.32
D	>46	0.57
E	>41	1.00
F	<41	-

* Highway Capacity Manual, Special Report 209; Transportation Research Board, Washington, D.C. (1985). Assumes 100 percent no-passing zone and 50 mph design speed.

** Miles per hour.

Roadway Link Analysis

Analyses of four roadways within the study area were examined and are summarized in Table 7. Centre Street currently operates at LOS E (approximately 80 percent of capacity) and will continue to operate at that level under both 1992 No-Build and Build conditions. The links analyzed on Colby Street and Blake Street will continue to operate at LOS B or better. The addition of site-generated traffic has only a nominal effect study area roadway links.

TABLE 7
ROADWAY LINK ANALYSIS

Location	Peak Hour	1989 Existing V/C*	1989 Existing LOS**	1992 No-Build V/C	1992 No-Build LOS	1992 Build V/C	1992 Build LOS
Centre Street between Colby and Cabot Streets	Morning	.79	E	.83	E	.84	E
	Evening	.83	E	.87	E	.88	E
Centre Street between BC Main Access and Colby Street	Morning	.77	E	.82	E	.82	E
	Evening	.81	E	.87	E	.87	E
Centre Street between Mill and Ward Streets	Morning	.76	E	.79	E	.80	E
	Evening	.79	E	.84	E	.85	E
Cabot Street between Centre and Cabot Streets	Morning	.17	B	.19	B	.19	B
	Evening	.12	A	.14	A	.14	A
Blake Street between Cabot and Mill Streets	Morning	.02	A	.03	A	.03	A
	Evening	.03	A	.03	A	.03	A

* Volume-to-capacity ratio.
** Level of service.

UNSIGNALIZED INTERSECTIONS

The levels of service of the study area's unsignalized intersections were determined using a procedure described in 1985 Highway Capacity Manual.[5] By this procedure, the maximum potential flow of vehicles for each minor approach is calculated based on the gap frequency/acceptance analysis procedure. The maximum potential flow is then compared to the demand at each minor approach, resulting in an estimate of the probable delay, reserve capacity, and level of service. The difference between available capacity and demand is defined as reserve capacity and is used as the criteria for determining level of service. This procedure accounts for lane configuration on both the minor and major approaches, conflicting traffic streams, type of intersection control, percent trucks and buses in the traffic stream, and vertical roadway alignment. Table 8 summarizes the relationship between level of service, reserve capacity, and probable delay.

Table 8 LEVEL-OF-SERVICE CRITERIA - UNSIGNALIZED INTERSECTIONS*

LOS	Probable Delay	Available Reserve Capacity
A	Little or no delay	400 vehicles/hour
B	Short traffic delays	300 to 399 vehicles/hour
C	Average traffic delays	200 to 299 vehicles/hour
D	Long traffic delays	100 to 199 vehicles/hour
E	Very long traffic delays	0 to 99 vehicles/hour
F	Extreme delays	

* Highway Capacity Manual, Special Report 209; Transportation Research Board, Washington, D.C. (1985).

Unsignalized Intersection Analysis

There are eight unsignalized intersections within the study area. The analysis results, as summarized in Table 9, show that the unsignalized intersections along Centre Street generally operate at low levels of service. With the exception of the intersection of Centre Street and Cotton Street during the evening peak hour (LOS C), all of the Centre Street unsignalized intersections within the study are projected to operate at LOS D or less under 1992 No-Build and Build conditions. This is due primarily to the increase in traffic along Centre Street resulting from the growth of through traffic. The higher through volumes on Centre Street

5 Highway Capacity Manual, Special Report 209; Transportation Research Board, Washington, D.C. (1985).

TABLE 9
UNSIGNALIZED INTERSECTION ANALYSIS

Intersection	Peak Hour	1989 Existing Reserve Cap.*	1989 Existing LOS	1992 No-Build Reserve Cap.	1992 No-Build LOS	1992 Build Reserve Cap.	1992 Build LOS
Centre Street and Mill Street	Morning	-30	F	-30	F	-30	F
	Evening	55	E	50	E	50	E
Centre Street and Cotton Street	Morning	85	E	80	E	80	E
	Evening	210	C	205	C	205	C
Centre Street and BC Main Driveway	Morning	200	C	195	D	195	D
	Evening	-35	F	-40	F	-55	F
Centre Street and Colby Street	Morning	230	C	195	D	190	D
	Evening	100	D	75	E	75	E
Colby Street and BC Main Driveway	Morning	1,120	A	1,120	A	1,110	A
	Evening	940	A	910	A	900	A
Colby Street and Rochester Road	Morning	880	A	880	A	880	A
	Evening	885	A	885	A	870	A
Parkview Avenue, Cabot Street, and Blake Street	Morning	535	A	520	A	520	A
	Evening	590	A	610	A	610	A
Mill Street, Blake Street, and Cedar Street	Morning	720	A	720	A	720	A
	Evening	685	A	685	A	685	A

* Reserve capacity is defined as the difference between therorectical available capacity and demand.

causes side street delay to increase, thereby decreasing level of service. The addition of site traffic will have little impact on traffic operations at these intersections as is illustrated in the table. The remaining intersections listed in Table 10 will operate at LOS A under both the No-Build and Build scenarios, just as they do today.

SIGNALIZED INTERSECTIONS

Levels of service for signalized intersections are calculated using the operational analysis methodology of the 1985 Highway Capacity Manual.[6] This method assesses the effects of signal type, timing, phasing, progression, vehicle mix, and geometrics or delay. Level-of-service designations are based solely on the criterion of calculated average stopped delay per vehicle. Table 10 summarizes the relationship between level of service and delay. The tabulated delay criterion may be applied in assigning level-of-service designations to individual lane groups or intersection approaches, or to the entire intersection.

Table 10 LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS*

Level of Service	Stopped Delay per Vehicle (seconds)
A	≤5.0
B	5.1 to 15.0
C	15.1 to 25.0
D	25.1 to 40.0
E	40.1 to 60.0
F	>60.0

* Highway Capacity Manual, Special Report 209; Transportation Research Board, Washington, D.C. (1985). Assumes 100 percent no-passing zone and 50 mph design speed.

Traffic signal timings provided by the city of Newton Department of Public Works and VHB's observations of geometry, pedestrians, parking, and transit activity were used in the analyses. The results of the signalized analyses--based on these figures, as well as existing and projected traffic volumes--are summarized in Table 11.

6 CINCH; Daniel F. Beagan (Central Transportation Planning Staff), Massachusetts Department of Public Works, based on: Transportation Research Board, Special Report 209, Chapter 9, Signalized Intersection - Operation and Design (1985).

Table 11 SIGNALIZED INTERSECTION ANALYSIS

Intersection	Peak Hour	1989 Existing Delay*	1989 Existing LOS**	1992 No-Build Delay	1992 No-Build LOS	1992 Build Delay	1992 Build LOS
Centre Street, Cabot Street, and Sargent Street	Morning	10.3	B	13.8	B	14.16	B
	Evening	42.6	E	--	F	--	F
Centre Street and Ward Street	Morning	10.3	B	14.6	B	16.5	C
	Evening	27.7	D	49.0	E	53.1	E

* Average delay per vehicle entering the intersection expressed in seconds.
** Level of service.
-- Theoretical delay is greater than 90 seconds per vehicle. This represent a condition where volume-to-capacity ratio is greater than 1.2 calculated delay may be unrealistic according to the 1985 Highway Capacity Manual.

As the table indicates, under peak hour conditions, delay at both intersections is expected to increase from Existing to No-Build conditions. The intersection of Centre Street, Cabot Street and Sargent Street is expected to exceed capacity during the evening peak hour under both 1992 No-Build and Build conditions. The intersection of Centre Street and Ward Street is expected to operate at level-of-service E (near capacity) under both conditions during the evening peak. Both intersections will continue to operate at desirable levels of service during the morning peak hour. While the addition of site traffic increases delay, it is marginal when compared to that expected as a result of the growth in through traffic along Centre Street. It is evident that under these conditions, the queuing observed during the peak hour may increase in frequency and duration as traffic volumes increase.

The previous analysis has shown that the development of a 500-bed dormitory on the Boston College Newton campus will have little impact on the surrounding street system. While the impact of the potential development is expected to be nominal, measures to enhance traffic flow along Centre Street were analyzed. Specific geometric improvements which could improve traffic operations along Centre Street have been analyzed and are discussed by location below.

Centre Street between Cabot Street and Ward Street

Centre Street currently carries a maximum of approximately 25,300 vehicles per day (vpd) and is expected to carry 26,800 vpd by 1992 without development on the Newton campus. The roadway link analysis shows that Centre Street is operating at as much as 83 percent of capacity during the peak hour. By 1992, Centre Street is expected to be operating at 87 percent of capacity under No-Build conditions. Since Centre Street is quickly approaching capacity during the peak hour, a four-lane cross section was analyzed. The level of service (LOS) on Centre Street with a four-lane cross section increases from LOS E to C under both 1992 No-Build and Build conditions. Although a significant traffic flow benefit is realized, implementing this alternative would require substantial roadway widening. The potential expense of additional rights-of-way and easements, relocation of utilities, and construction, along with the disruption of the neighborhood character of Centre Street, would seem to preclude this alternative.

Centre Street, Boston College Newton Campus Main Driveway, and
Cotton Street

Another potential improvement option involves realigning and signalizing the intersection of Centre Street, Boston College Newton campus main driveway, and Cotton Street. Cotton Street and the Boston College main driveway are offset such that left turns into the Newton campus and left turns on to Cotton Street overlap because of the short distance between the two streets. It is desirable, based on optimum design standards, to align the two streets; however, the impact on the Newton campus' main entrance must also be taken into account. The impact on Cotton Street must be considered as well. Local residents feel traffic to and from Boston College should not use Cotton Street. Aligning the Boston College main driveway with Cotton Street will only enhance the potential for "cut-through" traffic on Cotton Street. Boston College officials have expressed reluctance in the past to this proposal. Since turning volumes at the intersection are low and there is no apparent accident history (at least in the past two years), the realignment of the intersection may not be necessary.

In addition to realigning the intersection, it has been suggested that the intersection be signalized. While signalization may be justified and would certainly decrease delay for left-turning vehicles out of the Newton campus main driveway (and Cotton Street if it were aligned with the BC driveway), it would introduce additional delay along the more heavily traveled Centre Street approaches decreasing the level of service for the majority of drivers.

Installation of a left-turn lane into the Boston College Newton campus main driveway from northbound centre street may help to east traffic flow as well as protect left-turning vehicles from the possibility of rear-end collision. To accommodate peak hour design volumes, the left-turn lane should be 80- to 100-feet long and a minimum ten feet wide. Storage length may be restricted due to the proximity of Cotton Street. A left-turn lane can be accommodated within Centre Street which has a 36-foot face-of-curb to face-of-curb roadway width by restriping existing pavement.

Also, stated in the Existing Conditions section of this report, overhanging shrubbery and a wall at the southeastern corner of Centre Street and Cotton Street contribute to poor sight distance, particularly for vehicles exiting Cotton Street. Trimming the shrubbery and trees at this location would improve sight distance and enhance safety at this location.

Boston College Mill Street Driveway

As part of this report, Boston College asked VHB to analyze the impact of removing the chain on the Mill Street driveway to provide alternative access/egress to and from the campus. As is discussed in the Trip Distribution section of this report, it is estimated that 5 percent of the total existing traffic generated by the Newton campus (ten vehicles per hour during the morning peak hour, fifteen vehicles per hour during the evening peak hour) uses Mill Street. Removing the chain and opening the Mill Street driveway would accommodate these trips to and from the campus. A small percentage of vehicles destined for Centre Street (most likely a percentage of those parked near the Mill Street driveway) would also use this access. The result would likely be a nominal increase in daily traffic on Mill Street, as well as a small decrease in traffic at the Newton Campus main driveway.

It is clear from field observations and the analysis herein that Centre Street within the study area is currently operating at or near capacity, particularly during the evening peak hour. The normal growth of background traffic in future years only serves to exacerbate these conditions. The 500-bed dormitory, if constructed, is anticipated to have a measurable, but nominal, impact on traffic operations. Traffic volumes along Centre Street are expected to increase by less than 3 percent during the peak hours compared to 1992 No-Build conditions. Volume increases on the remaining streets will be negligible. Traffic operations along Centre Street are therefore expected to become more congested by the 1992 base year whether the site is develped or not. The development of the Boston College Newton campus site will, if implemented, have a minimal traffic impact on the surrounding street system.

While the impacts of the potential project are small, several alternatives intended to relieve congestion along Centre Street were examined. Improvements such as widening Centre Street to four-lanes and realignment and signalization of Boston College Main driveway were studied. These are not recommended mainly on the basis of neighborhood impacts and cost. VHB does recommend the following:

- Shrubbery and overhanging foliage along the southwestern corner of the intersection of Cotton Street and Centre Street should be trimmed to enhance sight distance for vehicles exiting Cotton Street and vehicles approaching from the south along Centre Street.

- A left-turn lane on the northbound Centre Street in to the Boston College Main driveway should be constructed by restriping the existing pavement. The lane should be a minimum ten feet wide with eighty feet of storage.

- The Mill Street driveway could be opened to provide better access to and egress from the Newton campus with nominal increases in traffic on Mill Street. This would also reduce the peak-hour traffic volume at the Newton campus main driveway.

APPENDIX

MEASURED TRIP GENERATION RATE
LEVEL-OF-SERVICE COMPARISON

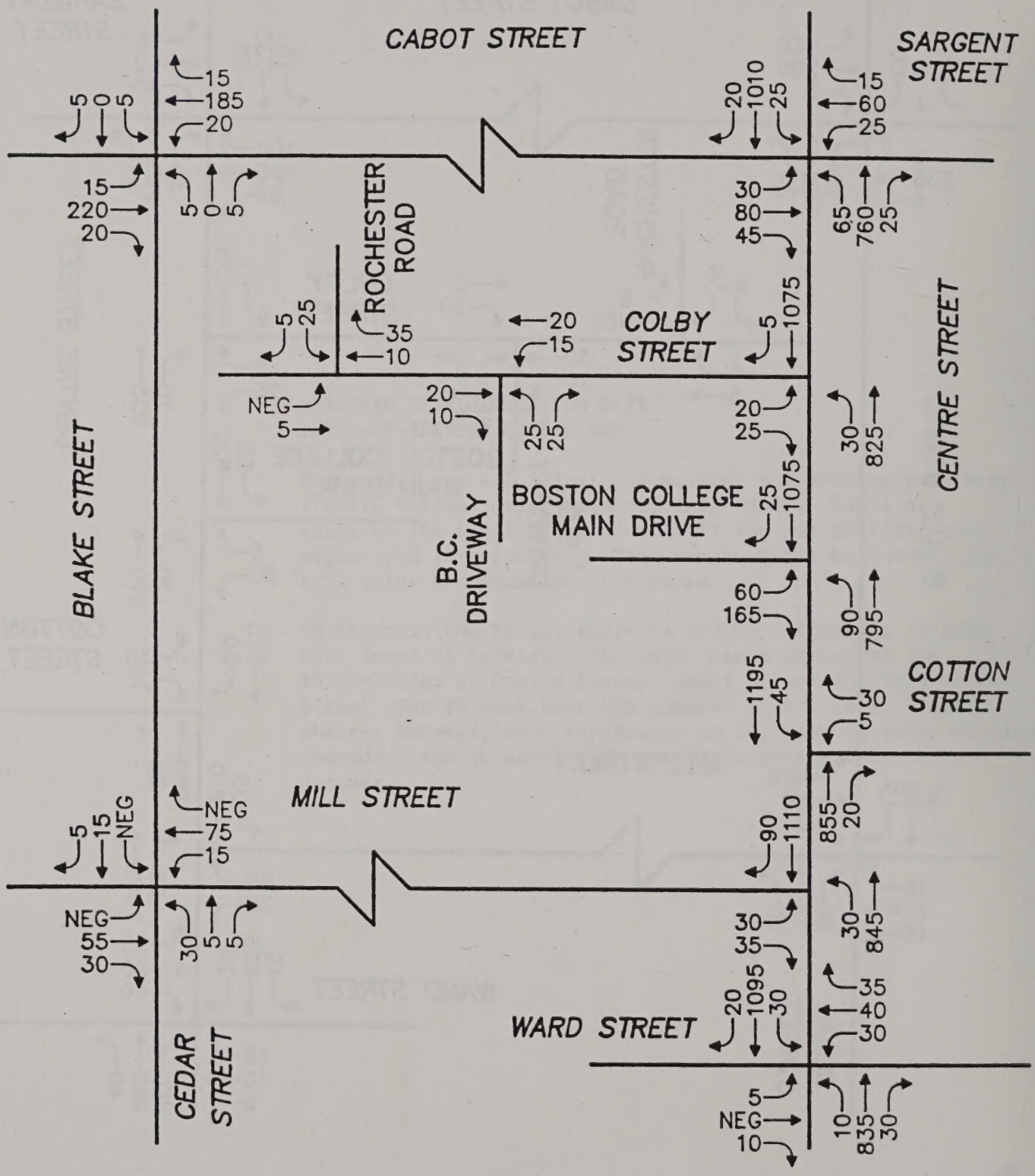
Figure A-1 and A-2 illustrate morning and evening peak hour traffic volumes using measured trip rates. Table A-1 compares the level of service (LOS) for unsignalized and signalized intersections along Centre using both empirical trip rates and measured trip rates.

As shown in the Table, there is little difference in peak hour level of service. The only change occurs at the intersection of Centre Street, Cabot Street and Sargent Street when PM peak hour LOS changes from E to F. This change, however, only represents an increase in delay of nine seconds. The threshold for level-of-service F is sixty seconds.

Vanasse Hangen Brustlin, Inc.

1992 Build Using Measured Trip Generation Rates
AM Peak Hour
Traffic Volumes

Figure A-1



Vanasse Hangen Brustlin, Inc.

1992 Build Using Measured Trip Generation Rates
PM Peak Hour
Traffic Volumes

Figure A-2

Table A-1 LEVEL-OF-SERVICE ANALYSIS COMPARISON
MEASURED TRIP RATES VERSUS EMPIRICAL TRIP RATES

Unsignalized Intersections	Peak Hour	1992 No-Build Res Cap	LOS	1992 Build ITE Res Cap	LOS	1992 Build Measured Res	LOS
Centre Street/ Mill Street	Morning	-30	F	-30	F	-30	F
	Evening	50	E	50	E	50	E
Centre Street/ Cotton Street	Morning	80	E	80	E	80	E
	Evening	205	C	205	C	200	C
Centre Street/ BC Main Drive	Morning	195	D	195	D	195	D
	Evening	-40	F	-55	F	-65	F
Centre Street/ Colby Street	Morning	195	D	190	D	190	D
	Evening	75	E	75	E	75	E
Colby Street/ BC Access	Morning	1,120	A	1,110	A	1,110	A
	Evening	910	A	900	A	900	A
Signalized Intersections		**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
Centre Street/ Ward Street/ Centre Street	Morning	14.6	B	16.53	C	16.53	C
	Evening	49.0	E	53.1	E	62.8	F
Cabot Street/ Sargent Street	Morning	13.8	B	14.2	B	14.2	B
	Evening	146.3	F	163.6	F	169.2	F

SITE CODE : 00002415 PAGE: 1
Location : CENTER ST. /BET WARD & CLINTON FILE: CENTER2
Weather :
Operator : VAN/BR DATE: 4/24/89

TIME BEGIN	MONDAY 24		TUESDAY 25		WEDNESDAY 26		THURSDAY 27		FRIDAY 28		SATURDAY 29		SUNDAY 30		WEEK AVERAGE	
	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2
12:00 AM	*	*	63	101	82	100	101	115	0	0	0	0	0	0	41	52
1:00	*	*	41	34	40	42	50	41	0	0	0	0	0	0	21	19
2:00	*	*	15	25	20	24	30	35	0	0	0	0	0	0	10	14
3:00	*	*	9	15	13	17	16	19	0	0	0	0	0	0	6	8
4:00	*	*	30	18	20	16	30	21	0	0	0	0	0	0	13	9
5:00	*	*	112	64	103	55	114	55	0	0	0	0	0	0	54	29
6:00	*	*	388	253	369	250	389	250	0	0	0	0	0	0	190	125
7:00	*	*	860	562	880	581	834	561	0	0	0	0	0	0	429	284
8:00	*	*	1001	779	1015	764	1055	706	0	0	0	0	0	0	511	374
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10:00	*	*	685	589	579	595	662	606	0	0	0	0	0	0	317	298
11:00	*	*	604	663	634	648	640	643	0	0	0	0	0	0	313	325
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1:00	*	*	683	721	730	652	676	710	0	0	0	0	0	0	348	347
2:00	669	737	773	760	796	786	480	553	0	0	0	0	0	0	388	405
3:00	784	810	779	947	766	827	1	0	0	0	0	0	0	0	332	354
4:00	754	858	781	839	761	843	0	0	0	0	0	0	0	0	328	362
5:00	779	973	852	989	891	982	0	0	0	0	0	0	0	0	360	417
6:00	752	886	814	904	818	924	0	0	0	0	0	0	0	0	340	387
7:00	626	692	644	810	730	800	0	0	0	0	0	0	0	0	285	328
8:00	501	549	522	519	552	653	0	0	0	0	0	0	0	0	225	245
9:00	477	481	548	488	511	560	0	0	0	0	0	0	0	0	219	221
10:00	286	333	314	360	353	361	0	0	0	0	0	0	0	0	136	150
11:00	164	172	187	232	222	239	1	0	0	0	0	0	0	0	82	91
TOTALS	5792	6491	12182	11801	12384	12037	6571	5825	0	0	0	0	0	0	5698	5486

COMBINED TOTALS

12:00 AM	*	164	182	216	0	0	0	93
1:00	*	75	82	91	0	0	0	40
2:00	*	40	44	65	0	0	0	24
3:00	*	24	30	35	0	0	0	14
4:00	*	48	36	51	0	0	0	22
5:00	*	176	158	169	0	0	0	83
6:00	*	639	619	639	0	0	0	315
7:00	*	1422	1461	1395	0	0	0	713
8:00	*	1780	1779	1761	0	0	0	885
9:00	*	1418	1490	1462	0	0	0	727
10:00	*	1254	1174	1268	0	0	0	615
11:00	*	1267	1282	1283	0	0	0	638
12:00 PM	*	1313	1329	1340	0	0	0	663
1:00	*	1404	1382	1386	0	0	0	695
2:00	1406	1533	1582	1033	0	0	0	793
3:00	1594	1626	1593	1	0	0	0	686
4:00	1612	1620	1604	0	0	0	0	690
5:00	1752	1841	1853	0	0	0	0	777
6:00	1638	1718	1740	0	0	0	0	727
7:00	1318	1454	1530	0	0	0	0	613
8:00	1053	1046	1205	0	0	0	0	470
9:00	955	1074	1091	0	0	0	0	440
10:00	619	674	714	0	0	0	0	286
11:00	335	419	461	1	0	0	0	173
TOTALS	12283	23983	24421	12196	0	0	0	11182

SITE CODE : 00002415 PAGE: 2
Location : CENTER ST. /BET WARD & CLINTON FILE: CENTER2
Weather :
Operator : VAN/SR DATE: 5/01/89

TIME BEGIN	MONDAY 1		TUESDAY 2		WEDNESDAY 3		THURSDAY 4		FRIDAY 5		SATURDAY 6		SUNDAY 7		WEEK AVERAGE	
	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2
12:00 AM	0	0													0	0
1:00	0	0													0	0
2:00	0	0													0	0
3:00	0	0													0	0
4:00	0	0													0	0
5:00	0	0													0	0
6:00	0	0													0	0
7:00	0	0													0	0
8:00	0	0													0	0
9:00	0	0													0	0
10:00	0	0													0	0
11:00	0	0													0	0
12:00 PM	0	0													0	0
1:00																
2:00																
3:00																
4:00																
5:00																
6:00																
7:00																
8:00																
9:00																
10:00																
11:00																
TOTALS	0	0													0	0

COMBINED TOTALS

12:00 AM	0						0
1:00	0						0
2:00	0						0
3:00	0						0
4:00	0						0
5:00	0						0
6:00	0						0
7:00	0						0
8:00	0						0
9:00	0						0
10:00	0						0
11:00	0						0
12:00 PM	0						0
1:00							
2:00							
3:00							
4:00							
5:00							
6:00							
7:00							
8:00							
9:00							
10:00							
11:00							
TOTALS	0						0

VANASSE/HANSEN/BRUSTLIN

HOURLY, 2 CHANNEL VEHICLE COUNT

REFERENCE: 2415 CORRECTION FACTOR: 1.00

LOCATION : CENTRE ST/BET BC ENT. & MILL RD NEWTON, MA FILENAME: CENTREBC

WEATHER : WEEK OF MONDAY 5 / 1 / 89

OPERATOR : SES/BR

HOUR BEGINS	MONDAY 1 S	MONDAY 1 N	TUESDAY 2 S	TUESDAY 2 N	WEDNESDAY 3 S	WEDNESDAY 3 N	THURSDAY 4 S	THURSDAY 4 N	FRIDAY 5 S	FRIDAY 5 N	SATURDAY 6 S	SATURDAY 6 N	SUNDAY 7 S	SUNDAY 7 N	WEEKDAY AVERAGE S	WEEKDAY AVERAGE N
12 AM							122	76	132	97					127	87
1							52	43	62	62					57	53
2							34	20	40	21					37	21
3							16	15	18	13					17	14
4							18	22	29	30					23	26
5							67	136	60	128					64	132
6							258	395	257	372					258	384
7							601	840	581	857					591	849
8							811	1035	824	1046					818	1041
9							685	823	661	786					673	805
10							620	669	630	704					625	687
11							702	706							702	706
12 PM					662	670	678	668							670	669
1					799	664	765	634							782	649
2					784	785	759	693							772	739
3					932	802	890	739							911	771
4					969	793	1006	750							988	771
5					1155	862	1139	811							1147	837
6					1050	775	972	848							1011	812
7					872	762	851	692							862	727
8					570	582	644	607							607	595
9					548	521	568	523							557	522
10					435	330	429	360							432	345
11					256	162	283	210							270	186
TOTALS					9030	7658	12968	12320	3294	4116					13001	12420

COMBINED TOTALS

12			198	226			214
1			95	124			110
2			54	61			58
3			31	31			31
4			38	59			49
5			203	188			196
6			653	629			642
7			1441	1438			1440
8			1846	1870			1859
9			1508	1447			1478
10			1289	1334			1312
11			1408				1408
12			1332	1346			1339
1			1463	1399			1431
2			1569	1452			1511
3			1734	1629			1682
4			1762	1758			1760
5			2017	1955			1986
6			1825	1820			1823
7			1634	1543			1589
8			1132	1251			1192
9			1087	1091			1079
10			785	789			777
11			418	493			456
TOTALS			16718	25288	7410		25422

SITE CODE : 00002415 PAGE: 1
Location : CENTER ST.BET. COLBY & B.C. FILE: CENTRE
Weather : MAIN DR. NEWTON,MA.
Operator : GIL DATE: 5/08/89

TIME BEGIN	MONDAY 8 Ch 1	MONDAY 8 Ch 2	TUESDAY 9 Ch 1	TUESDAY 9 Ch 2	WEDNESDAY 10 Ch 1	WEDNESDAY 10 Ch 2	THURSDAY 11 Ch 1	THURSDAY 11 Ch 2	FRIDAY 12 Ch 1	FRIDAY 12 Ch 2	SATURDAY 13 Ch 1	SATURDAY 13 Ch 2	SUNDAY 14 Ch 1	SUNDAY 14 Ch 2	WEEK AVERAGE Ch 1	WEEK AVERAGE Ch 2
12:00 AM					87	112	71	97							79	104
1:00					52	36	47	39							49	37
2:00					18	23	28	29							23	26
3:00					17	12	17	20							17	16
4:00					13	21	18	27							15	24
5:00					116	58	114	54							115	56
6:00					357	232	333	239							345	235
7:00					834	641	813	622							823	631
8:00					913	817	963	813							938	815
9:00					700	710	768	662							734	686
10:00					620	656	579	661							599	658
11:00					622	706	679	639							650	672
12:00 PM					651	750	477	555							564	652
1:00					651	691									651	691
2:00					697	834									697	834
3:00			702	871	747	925									724	898
4:00			755	981	811	907									783	944
5:00			825	1113	749	1086									787	1099
6:00			780	1068	699	1101									739	1084
7:00			635	867	635	827									635	847
8:00			561	595	494	558									527	576
9:00			449	526	453	513									451	519
10:00			337	381	289	379									313	380
11:00			213	247	174	229									193	238
TOTALS			5257	6649	11399	12824	4907	4457							11451	12722

COMBINED TOTALS

12:00 AM			199	168				183
1:00			88	86				86
2:00			41	57				49
3:00			29	37				33
4:00			34	45				39
5:00			174	168				171
6:00			589	572				580
7:00			1475	1435				1454
8:00			1730	1776				1753
9:00			1410	1430				1420
10:00			1276	1240				1257
11:00			1328	1318				1322
12:00 PM			1401	1032				1216
1:00			1342					1342
2:00			1531					1531
3:00		1573	1672					1622
4:00		1736	1718					1727
5:00		1938	1835					1886
6:00		1848	1800					1823
7:00		1502	1462					1482
8:00		1156	1052					1103
9:00		975	966					970
10:00		718	668					693
11:00		460	403					431
TOTALS		11906	24223	9384				24173

VANNASSE/HANGEN/BRUSTLIN
HOURLY, 2 CHANNEL VEHICLE COUNT

REFERENCE: 2415 CORRECTION FACTOR: 1.00
LOCATION : CENTRE ST/BET CABOT ST & COLBY NEWTON, MA FILENAME: CENTRECC
WEATHER :
OPERATOR : SES/GR WEEK OF MONDAY 5 / 1 / 89

HOUR BEGINS	MONDAY 1		TUESDAY 2		WEDNESDAY 3		THURSDAY 4		FRIDAY 5		SATURDAY 6		SUNDAY 7		WEEKDAY AVERAGE	
	N	S	N	S	N	S	N	S	N	S	N	S	N	S	N	S
12 AM							78	112	77	120					78	116
1							38	44	56	53					47	4
2							20	31	21	38					21	3
3							12	13	12	18					12	16
4							20	15	27	28					24	27
5							120	60	121	60					121	6
6							384	267	354	258					369	262
7							779	613	808	599					794	606
8							927	849	869	892					898	87
9							680	764	687	666					684	71
10							630	603							630	603
11							645	669							645	66
12 PM					618	669	599	663							609	66
1					616	758	588	719							602	739
2					739	762	646	740							693	75
3					775	902	696	860							736	88
4					744	939	711	986							728	96
5					808	1170	770	1128							789	1149
6					724	1075	772	996							748	103
7					722	875	662	856							692	86
8					536	551	584	629							560	590
9					492	523	494	551							493	53
10					338	426	347	412							343	41
11					156	219	202	253							179	236
TOTALS					7268	8869	11404	12833	3032	2730					11495	1285

COMBINED TOTALS

12				190	197			194
1				82	109			96
2				51	59			56
3				25	30			28
4				35	55			46
5				180	181			181
6				651	610			631
7				1392	1407			1400
8				1776	1761			1769
9				1444	1353			1399
10				1233				1233
11				1314				1314
12			1287	1262				1275
1			1374	1307				1341
2			1501	1386				1444
3			1677	1556				1617
4			1683	1697				1691
5			1978	1898				1938
6			1799	1768				1784
7			1597	1518				1558
8			1087	1213				1150
9			1015	1045				1030
10			764	759				762
11			375	455				415
TOTALS			16137	24237	5762			24252

Location : MILL ST. / W OF CENTRE ST.
Weather :
Operator : VAN/GR

FILE: MILLST

DATE: 4/24/87

TIME BEGIN	MONDAY 24		TUESDAY 25		WEDNESDAY 26		THURSDAY 27		FRIDAY 28		SATURDAY 29		SUNDAY 30		WEEK AVERAGE	
	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2
12:00 AM	*	*	11	0	2	5	3	7	0	0	0	0	0	0	2	2
1:00	*	*	1	0	3	4	3	1	0	0	0	0	0	0	1	0
2:00	*	*	2	0	0	0	1	0	0	0	0	0	0	0	0	0
3:00	*	*	3	1	0	0	0	0	0	0	0	0	0	0	0	0
4:00	*	*	2	0	1	2	1	2	0	0	0	0	0	0	0	0
5:00	*	*	6	1	3	2	6	1	0	0	0	0	0	0	2	0
6:00	*	*	28	1	26	8	30	7	0	0	0	0	0	0	14	2
7:00	*	*	117	26	71	39	86	45	0	0	0	0	0	0	45	18
8:00	*	*	126	31	93	57	95	62	0	0	0	0	0	0	52	25
9:00	*	*	83	19	68	37	72	44	0	0	0	0	0	0	37	16
10:00	*	*	63	18	58	34	44	33	0	0	0	0	0	0	27	14
11:00	*	*	44	22	48	45	53	40	0	0	0	0	0	0	24	17
12:00 PM	*	*	58	35	51	45	57	43	0	0	0	0	0	0	27	20
1:00	64	23	65	45	47	50	50	53	0	0	0	0	0	0	32	24
2:00	71	32	55	67	35	57	56	60	0	0	0	0	0	0	31	30
3:00	92	46	65	84	53	51	0	2	0	0	0	0	0	0	30	26
4:00	95	51	67	74	65	90	0	0	0	0	0	0	0	0	32	30
5:00	92	57	80	125	62	96	0	0	0	0	0	0	0	0	33	39
6:00	102	51	59	95	56	110	0	0	0	0	0	0	0	0	31	36
7:00	94	31	63	75	45	41	0	0	0	0	0	0	0	0	28	21
8:00	65	18	28	49	26	54	0	0	0	0	0	0	0	0	17	17
9:00	51	17	23	20	38	38	0	0	0	0	0	0	0	0	16	10
10:00	27	5	15	28	14	30	0	0	0	0	0	0	0	0	8	8
11:00	17	2	6	8	9	13	0	0	0	0	0	0	0	0	4	3
TOTALS	770	333	1070	822	874	908	557	400	0	0	0	0	0	0	493	358

COMBINED TOTALS

12:00 AM	*	11	7	10	0	0	0	4
1:00	*	1	7	4	0	0	0	1
2:00	*	2	0	1	0	0	0	0
3:00	*	4	0	0	0	0	0	0
4:00	*	2	3	3	0	0	0	0
5:00	*	7	5	7	0	0	0	2
6:00	*	29	34	37	0	0	0	16
7:00	*	143	110	131	0	0	0	63
8:00	*	157	150	157	0	0	0	77
9:00	*	102	105	116	0	0	0	53
10:00	*	81	92	77	0	0	0	41
11:00	*	66	93	93	0	0	0	41
12:00 PM	*	93	96	100	0	0	0	47
1:00	87	110	97	103	0	0	0	56
2:00	103	122	92	116	0	0	0	61
3:00	138	149	104	2	0	0	0	56
4:00	146	141	155	0	0	0	0	62
5:00	149	205	158	0	0	0	0	72
6:00	153	154	166	0	0	0	0	67
7:00	125	138	86	0	0	0	0	49
8:00	83	77	80	0	0	0	0	34
9:00	68	43	76	0	0	0	0	26
10:00	32	41	44	0	0	0	0	16
11:00	19	14	22	0	0	0	0	7
TOTALS	1103	1892	1782	957	0	0	0	851

SITE CODE : 00002415
Location : MILL ST. / W OF CENTRE ST.
Weather :
Operator : VAN/BR

DATE: 5/01/89

TIME BEGIN	MONDAY 1 Ch 1	MONDAY 1 Ch 2	TUESDAY 2 Ch 1	TUESDAY 2 Ch 2	WEDNESDAY 3 Ch 1	WEDNESDAY 3 Ch 2	THURSDAY 4 Ch 1	THURSDAY 4 Ch 2	FRIDAY 5 Ch 1	FRIDAY 5 Ch 2	SATURDAY 6 Ch 1	SATURDAY 6 Ch 2	SUNDAY 7 Ch 1	SUNDAY 7 Ch 2	WEEK AVERAG Ch 1	WEEK AVERAG Ch 2
12:00 AM	0	0													0	0
1:00	0	0													0	0
2:00	0	0													0	0
3:00	0	0													0	0
4:00	0	0													0	0
5:00	0	0													0	0
6:00	0	0													0	0
7:00	0	0													0	0
8:00	0	0													0	0
9:00	0	0													0	0
10:00	0	0													0	0
11:00	0	0													0	0
12:00 PM	0	0													0	0
1:00																
2:00																
3:00																
4:00																
5:00																
6:00																
7:00																
8:00																
9:00																
10:00																
11:00																
TOTALS	0	0													0	0

COMBINED TOTALS

TIME BEGIN		
12:00 AM	0	0
1:00	0	0
2:00	0	0
3:00	0	0
4:00	0	0
5:00	0	0
6:00	0	0
7:00	0	0
8:00	0	0
9:00	0	0
10:00	0	0
11:00	0	0
12:00 PM	0	0
1:00		
2:00		
3:00		
4:00		
5:00		
6:00		
7:00		
8:00		
9:00		
10:00		
11:00		
TOTALS	0	0

SITE CODE :.00002415 PAGE: 2
Location : BLAKE ST/BET. CABOT & MILL ST. FILE: BLAKEST
Weather :
Operator : VAN/BR DATE: 5/01/89

TIME BEGIN	MONDAY 1		TUESDAY 2		WEDNESDAY 3		THURSDAY 4		FRIDAY 5		SATURDAY 6		SUNDAY 7		WEEK AVERAGE	
	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2
12:00 AM	0	0													0	0
1:00	0	0													0	0
2:00	0	0													0	0
3:00	0	0													0	0
4:00	0	0													0	0
5:00	0	0													0	0
6:00	0	0													0	0
7:00	0	0													0	0
8:00	0	0													0	0
9:00	0	0													0	0
10:00	0	0													0	0
11:00	0	0													0	0
12:00 PM	0	1													0	1
1:00	0	0													0	0
2:00																
3:00																
4:00																
5:00																
6:00																
7:00																
8:00																
9:00																
10:00																
11:00																
TOTALS	0	1													0	1

COMBINED TOTALS

12:00 AM	0
1:00	0
2:00	0
3:00	0
4:00	0
5:00	0
6:00	0
7:00	0
8:00	0
9:00	0
10:00	0
11:00	0
12:00 PM	1
1:00	0
2:00	
3:00	
4:00	
5:00	
6:00	
7:00	
8:00	
9:00	
10:00	
11:00	
TOTALS	1

SITE CODE :.00002415 PAGE: 1
Location : BLAKE ST/BET. CABOT & MILL ST. FILE: BLAKEST
Weather :
Operator : VAN/BR DATE: 4/24/89

TIME	MONDAY 24		TUESDAY 25		WEDNESDAY 26		THURSDAY 27		FRIDAY 28		SATURDAY 29		SUNDAY 30		WEEK AVERAGE	
BEGIN	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2
12:00 AM	*	*	0	1	1	1	2	3	0	0	0	0	0	0	0	0
1:00	*	*	0	0	1	0	1	0	0	0	0	0	0	0	0	0
2:00	*	*	0	0	0	0	1	0	0	0	0	0	0	0	0	0
3:00	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	*	*	1	1	0	0	1	1	0	0	0	0	0	0	0	0
5:00	*	*	1	1	4	2	2	0	0	0	0	0	0	0	1	0
6:00	*	*	2	3	1	2	3	4	0	0	0	0	0	0	1	1
7:00	*	*	12	12	13	15	18	16	0	0	0	0	0	0	7	7
8:00	*	*	14	21	18	30	22	35	0	0	0	0	0	0	9	14
9:00	*	*	12	16	10	14	17	14	0	0	0	0	0	0	6	7
10:00	*	*	11	8	9	6	17	18	0	0	0	0	0	0	6	5
11:00	*	*	6	11	11	10	16	11	0	0	0	0	0	0	5	5
12:00 PM	*	*	8	9	12	14	13	14	0	0	0	0	0	0	5	6
1:00	13	7	18	17	8	11	17	22	0	0	0	0	0	0	7	8
2:00	8	13	18	12	13	14	14	15	0	0	0	0	0	0	7	7
3:00	17	15	9	14	19	16	1	2	0	0	0	0	0	0	6	6
4:00	19	11	28	15	22	17	0	0	0	0	0	0	0	0	9	6
5:00	31	7	28	13	24	17	0	0	0	0	0	0	0	0	11	5
6:00	10	14	17	14	13	13	0	0	0	0	0	0	0	0	5	5
7:00	14	2	11	11	22	14	0	0	0	0	0	0	0	0	6	3
8:00	7	8	5	5	8	3	0	0	0	0	0	0	0	0	2	2
9:00	6	2	2	4	6	4	0	0	0	0	0	0	0	0	2	1
10:00	5	5	2	1	5	2	0	0	0	0	0	0	0	0	1	1
11:00	6	3	2	2	2	5	0	0	0	0	0	0	0	0	1	1
TOTALS	136	87	205	189	222	210	145	155	0	0	0	0	0	0	97	90

COMBINED TOTALS

12:00 AM	*	1	2	5	0	0	0	0
1:00	*	0	1	1	0	0	0	0
2:00	*	0	0	1	0	0	0	0
3:00	*	0	0	0	0	0	0	0
4:00	*	2	0	2	0	0	0	0
5:00	*	2	6	2	0	0	0	1
6:00	*	5	3	7	0	0	0	2
7:00	*	24	28	34	0	0	0	14
8:00	*	35	48	57	0	0	0	23
9:00	*	28	24	31	0	0	0	13
10:00	*	17	15	35	0	0	0	11
11:00	*	17	21	27	0	0	0	10
12:00 PM	*	17	26	27	0	0	0	11
1:00	20	33	19	39	0	0	0	15
2:00	21	30	27	29	0	0	0	14
3:00	32	23	35	3	0	0	0	12
4:00	30	43	39	0	0	0	0	15
5:00	38	41	41	0	0	0	0	16
6:00	24	31	26	0	0	0	0	10
7:00	16	22	36	0	0	0	0	9
8:00	15	10	11	0	0	0	0	4
9:00	8	6	10	0	0	0	0	3
10:00	10	3	7	0	0	0	0	2
11:00	9	4	7	0	0	0	0	2
TOTALS	223	394	432	300	0	0	0	197

SITE CODE : 00002415
Location : COLBY ST. W.OF CENTRE ST.
Weather : NEWTON,MA.
Operator : GIL

FILE: COLBY

DATE: 5/08/89

TIME BEGIN	MONDAY 8		TUESDAY 9		WEDNESDAY 10		THURSDAY 11		FRIDAY 12		SATURDAY 13		SUNDAY 14		WEEK AVERAGE	
	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2	Ch 1	Ch 2
12:00 AM	‡	‡	‡	‡	8	8	1	6	‡	‡	‡	‡	‡	‡	4	7
1:00	‡	‡	‡	‡	2	6	2	1	‡	‡	‡	‡	‡	‡	2	3
2:00	‡	‡	‡	‡	1	2	0	3	‡	‡	‡	‡	‡	‡	0	2
3:00	‡	‡	‡	‡	2	1	2	1	‡	‡	‡	‡	‡	‡	2	1
4:00	‡	‡	‡	‡	1	1	0	0	‡	‡	‡	‡	‡	‡	0	0
5:00	‡	‡	‡	‡	4	1	3	0	‡	‡	‡	‡	‡	‡	3	0
6:00	‡	‡	‡	‡	7	2	5	2	‡	‡	‡	‡	‡	‡	6	2
7:00	‡	‡	‡	‡	23	4	20	8	‡	‡	‡	‡	‡	‡	21	6
8:00	‡	‡	‡	‡	37	7	54	17	‡	‡	‡	‡	‡	‡	45	12
9:00	‡	‡	‡	‡	52	8	42	8	‡	‡	‡	‡	‡	‡	47	8
10:00	‡	‡	‡	‡	24	9	16	12	‡	‡	‡	‡	‡	‡	20	10
11:00	‡	‡	‡	‡	26	10	18	14	‡	‡	‡	‡	‡	‡	22	12
12:00 PM	‡	‡	‡	‡	18	25	21	27	‡	‡	‡	‡	‡	‡	19	26
1:00	‡	‡	‡	‡	21	20	‡	‡	‡	‡	‡	‡	‡	‡	21	20
2:00	‡	‡	‡	‡	24	27	‡	‡	‡	‡	‡	‡	‡	‡	24	27
3:00	‡	‡	‡	‡	17	22	‡	‡	‡	‡	‡	‡	‡	‡	17	22
4:00	‡	‡	29	30	15	31	‡	‡	‡	‡	‡	‡	‡	‡	22	30
5:00	‡	‡	28	39	17	26	‡	‡	‡	‡	‡	‡	‡	‡	22	32
6:00	‡	‡	30	30	28	28	‡	‡	‡	‡	‡	‡	‡	‡	29	29
7:00	‡	‡	24	15	15	14	‡	‡	‡	‡	‡	‡	‡	‡	19	14
8:00	‡	‡	19	25	19	21	‡	‡	‡	‡	‡	‡	‡	‡	19	23
9:00	‡	‡	13	22	9	21	‡	‡	‡	‡	‡	‡	‡	‡	11	21
10:00	‡	‡	6	21	5	12	‡	‡	‡	‡	‡	‡	‡	‡	5	16
11:00	‡	‡	8	19	6	9	‡	‡	‡	‡	‡	‡	‡	‡	7	14
TOTALS	‡	‡	157	201	381	315	184	99	‡	‡	‡	‡	‡	‡	387	337

COMBINED TOTALS

12:00 AM	‡	‡	16	7	‡	‡	‡	11
1:00	‡	‡	8	3	‡	‡	‡	5
2:00	‡	‡	3	3	‡	‡	‡	2
3:00	‡	‡	3	3	‡	‡	‡	3
4:00	‡	‡	2	0	‡	‡	‡	0
5:00	‡	‡	5	3	‡	‡	‡	3
6:00	‡	‡	9	7	‡	‡	‡	8
7:00	‡	‡	27	28	‡	‡	‡	27
8:00	‡	‡	44	71	‡	‡	‡	57
9:00	‡	‡	60	50	‡	‡	‡	55
10:00	‡	‡	33	28	‡	‡	‡	30
11:00	‡	‡	36	32	‡	‡	‡	34
12:00 PM	‡	‡	43	48	‡	‡	‡	45
1:00	‡	‡	41	‡	‡	‡	‡	41
2:00	‡	‡	51	‡	‡	‡	‡	51
3:00	‡	‡	39	‡	‡	‡	‡	39
4:00	‡	59	46	‡	‡	‡	‡	52
5:00	‡	67	43	‡	‡	‡	‡	54
6:00	‡	60	56	‡	‡	‡	‡	58
7:00	‡	39	29	‡	‡	‡	‡	33
8:00	‡	44	40	‡	‡	‡	‡	42
9:00	‡	35	30	‡	‡	‡	‡	32
10:00	‡	27	17	‡	‡	‡	‡	21
11:00	‡	27	15	‡	‡	‡	‡	21
TOTALS	‡	358	696	283	‡	‡	‡	724

SITE CODE : 00002415
Location : CABOT/BET.CENTRE ST. & BLAKE
Weather :
Operator : VAN /GR

FILE: CABOTST
DATE: 4/24/89

TIME BEGIN	MONDAY 24 Ch 1	MONDAY 24 Ch 2	TUESDAY 25 Ch 1	TUESDAY 25 Ch 2	WEDNESDAY 26 Ch 1	WEDNESDAY 26 Ch 2	THURSDAY 27 Ch 1	THURSDAY 27 Ch 2	FRIDAY 28 Ch 1	FRIDAY 28 Ch 2	SATURDAY 29 Ch 1	SATURDAY 29 Ch 2	SUNDAY 30 Ch 1	SUNDAY 30 Ch 2	WEEK AVERAGE Ch 1	WEEK AVERAGE Ch 2
12:00 AM	‡	‡	2	2	13	6	13	6	0	0	0	0	0	0	4	2
1:00	‡	‡	3	2	5	3	9	1	0	0	0	0	0	0	2	1
2:00	‡	‡	0	0	3	2	6	6	0	0	0	0	0	0	1	1
3:00	‡	‡	0	0	2	0	2	0	0	0	0	0	0	0	0	0
4:00	‡	‡	1	2	1	1	3	0	0	0	0	0	0	0	0	0
5:00	‡	‡	10	7	4	8	2	7	0	0	0	0	0	0	2	3
6:00	‡	‡	15	41	16	54	17	36	0	0	0	0	0	0	8	21
7:00	‡	‡	78	177	73	153	75	170	0	0	0	0	0	0	37	83
8:00	‡	‡	97	261	101	260	105	218	0	0	0	0	0	0	50	123
9:00	‡	‡	82	102	60	91	78	120	0	0	0	0	0	0	36	52
10:00	‡	‡	60	97	67	94	72	86	0	0	0	0	0	0	33	46
11:00	‡	‡	82	81	72	87	80	86	0	0	0	0	0	0	39	42
12:00 PM	80	91	104	113	108	105	88	95	0	0	0	0	0	0	54	57
1:00	85	76	93	131	88	93	99	127	0	0	0	0	0	0	52	61
2:00	87	123	128	122	99	97	114	148	0	0	0	0	0	0	61	69
3:00	128	130	111	141	126	147	15	14	0	0	0	0	0	0	54	61
4:00	127	139	137	140	134	141	0	0	0	0	0	0	0	0	56	60
5:00	163	170	148	149	151	193	0	0	0	0	0	0	0	0	66	73
6:00	143	128	154	157	156	172	0	0	0	0	0	0	0	0	64	65
7:00	98	111	99	113	107	147	0	0	0	0	0	0	0	0	43	53
8:00	100	90	91	74	86	70	0	0	0	0	0	0	0	0	39	33
9:00	53	57	65	62	70	55	0	0	0	0	0	0	0	0	26	24
10:00	36	41	36	30	35	29	0	0	0	0	0	0	0	0	15	14
11:00	27	14	27	13	19	24	0	0	0	0	0	0	0	0	10	7
TOTALS	1125	1170	1623	2017	1596	2032	778	1118	0	0	0	0	0	0	752	951

COMBINED TOTALS

12:00 AM	‡	4	19	19	0	0	0	6
1:00	‡	5	8	10	0	0	0	3
2:00	‡	0	5	12	0	0	0	2
3:00	‡	0	2	2	0	0	0	0
4:00	‡	3	2	3	0	0	0	0
5:00	‡	17	12	9	0	0	0	5
6:00	‡	56	70	53	0	0	0	29
7:00	‡	255	226	245	0	0	0	120
8:00	‡	358	361	323	0	0	0	173
9:00	‡	184	151	198	0	0	0	88
10:00	‡	157	161	158	0	0	0	79
11:00	‡	163	159	166	0	0	0	81
12:00 PM	171	217	213	183	0	0	0	111
1:00	161	224	181	226	0	0	0	113
2:00	210	250	196	260	0	0	0	130
3:00	256	252	273	29	0	0	0	115
4:00	266	277	275	0	0	0	0	116
5:00	333	297	344	0	0	0	0	139
6:00	271	311	328	0	0	0	0	129
7:00	209	212	254	0	0	0	0	96
8:00	190	165	156	0	0	0	0	72
9:00	110	127	125	0	0	0	0	50
10:00	77	66	64	0	0	0	0	29
11:00	41	40	43	0	0	0	0	17
TOTALS	2295	3640	3628	1898	0	0	0	1703

Vanasse Hangen Brustlin, Inc.
60 Birmingham Parkway
Boston, Massachusetts 02135
617/783-7000

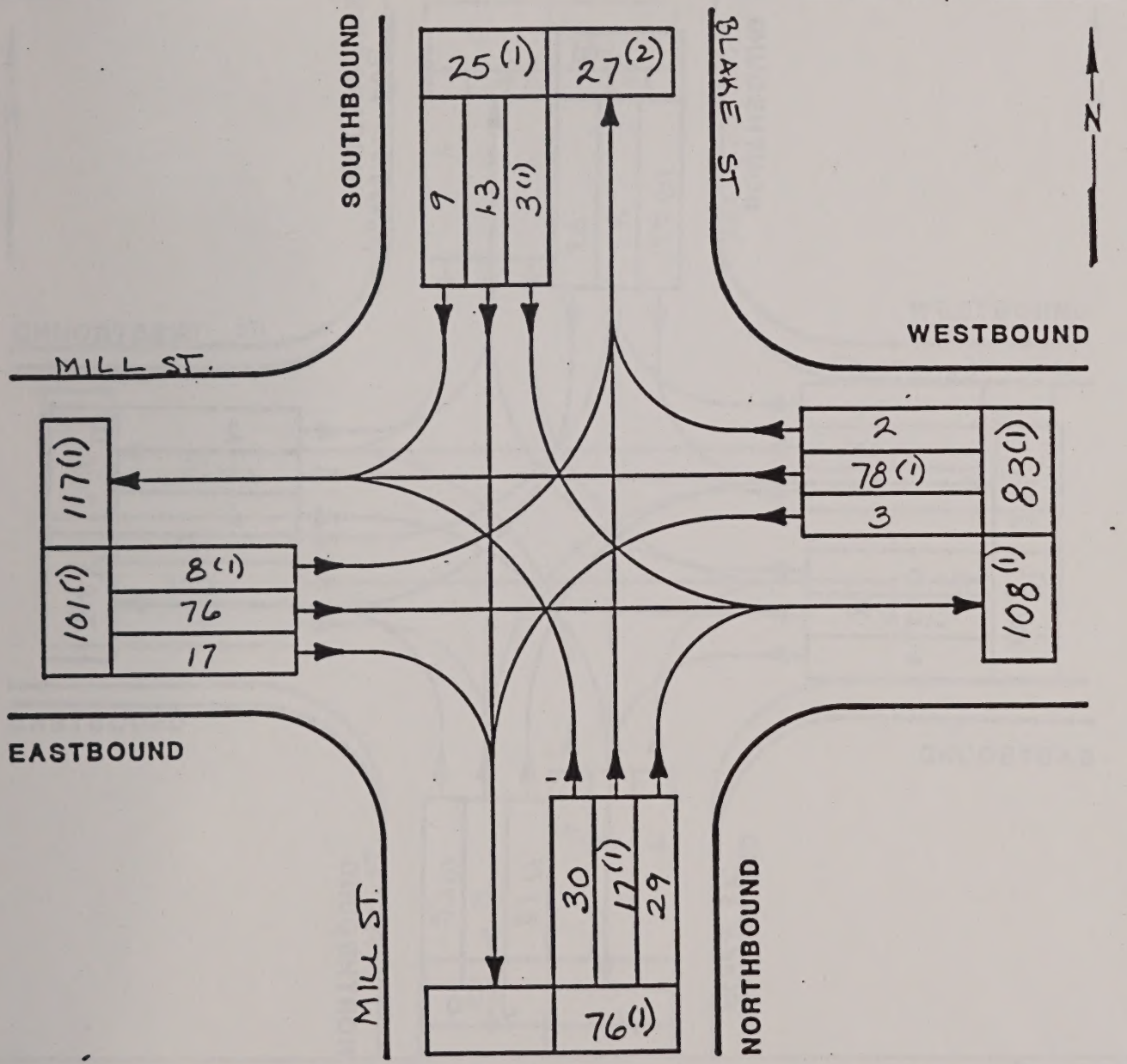
Consulting Engineers
& Planners

INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON DATE 5/2/89 DAY of WEEK TUES

INTERSECTION MILL/CEDAR/BLAKE JOB No. 2415

CALCULATED BY: MF



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 700 – 900
CEDAR ST NB	76(1)		(AM) PM PEAK HOUR: = 745-845
BLAKE ST SB	25(1)		
MILL ST EB	101(1)		P.H.F. = 0.78
MILL ST WB	83(1)		
			VEHICLES COUNTED
			ALL VEHICLES XXX 285
			TRUCKS (XX) 4
TOTAL	285(4)		PERCENT TRUCKS 1.4 %

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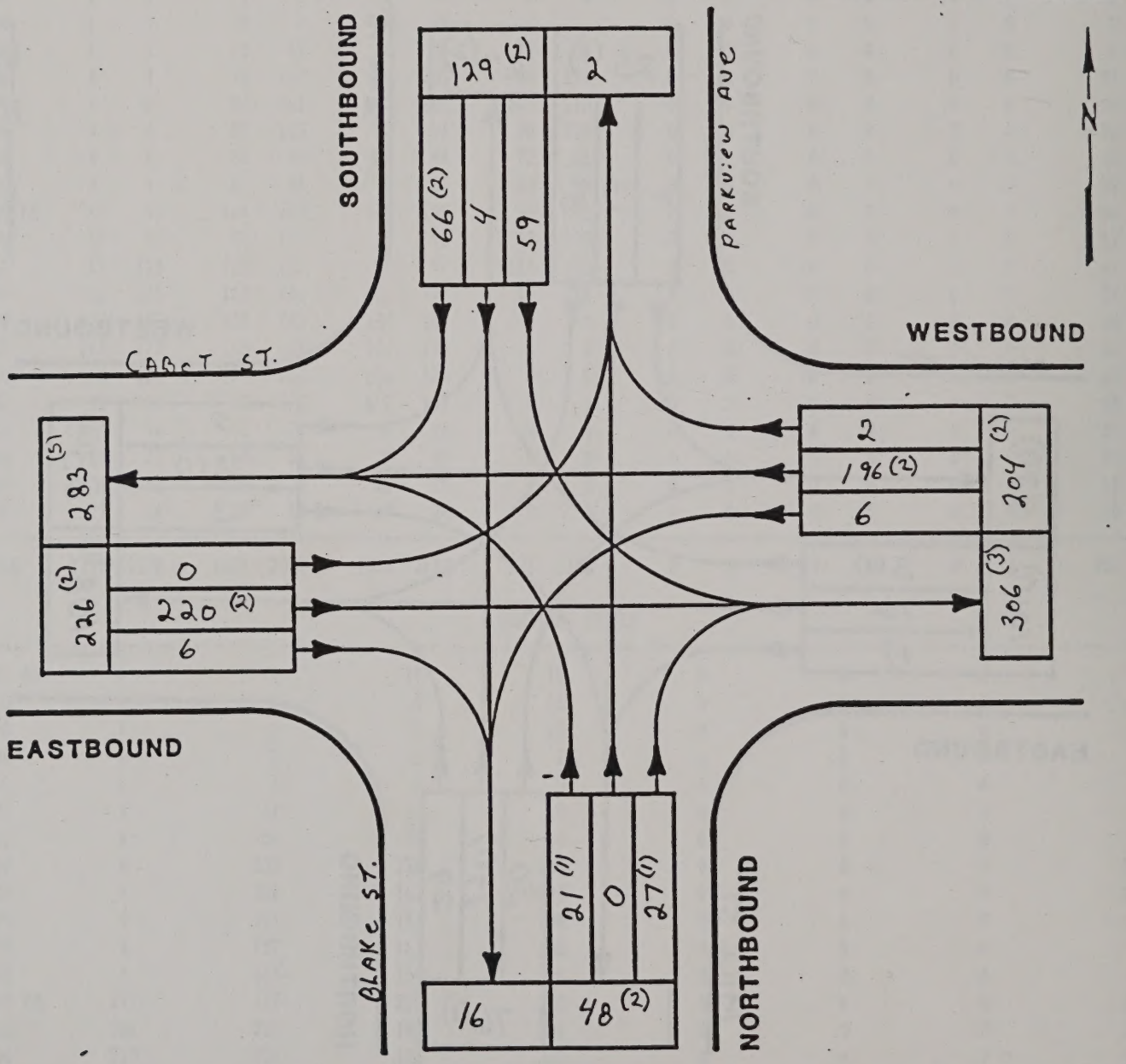
INTERSECTION TURNING MOVEMENT COUNT

CITY Newton MASS DATE 5-2-89 DAY of WEEK Tues

INTERSECTION BLAKE ST. / CABOT ST. JOB No. 2415

CALCULATED BY: G.R.



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 0700 — 0900
CABOT ST. EB	226 (2)	37%	(AM) PM PEAK HOUR: = 0745-0845
CABOT ST. WB	204 (2)	34%	
BLAKE ST. NB	48 (2)	8%	P.H.F. = .88%
PARKVIEW AVE SB	129 (2)	21%	
			VEHICLES COUNTED
			ALL VEHICLES XXX 607
			TRUCKS (XX) 8
TOTAL	607 (8)	100%	PERCENT TRUCKS 1.3 %

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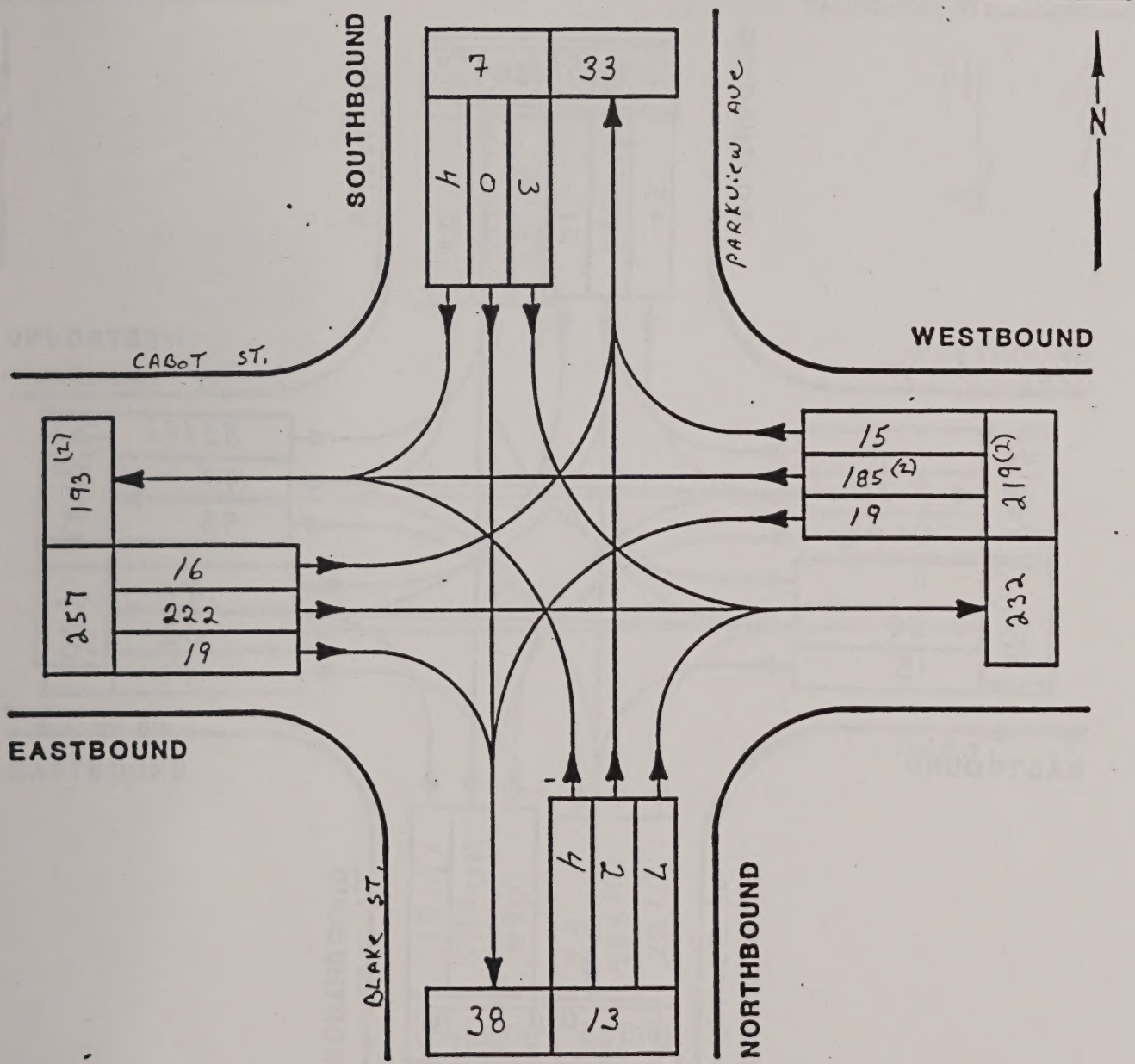
INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON MASS DATE 5-1 DAY of WEEK MON

INTERSECTION BLAKE ST. / CABOT ST. JOB No. 2415

CALCULATED BY: G.R.



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 1600 — 1800
CABOT ST. EB	257	52%	AM (PM) PEAK HOUR: = 1700-1800
CABOT ST. WB	219 (2)	44%	
BLAKE ST. NB	13	3%	P.H.F. = .95%
PARKVIEW AVE. SB	7	1	
			VEHICLES COUNTED
			ALL VEHICLES XXX 496
			TRUCKS (XX) 2
TOTAL	496 (2)	100%	PERCENT TRUCKS 0.4 %

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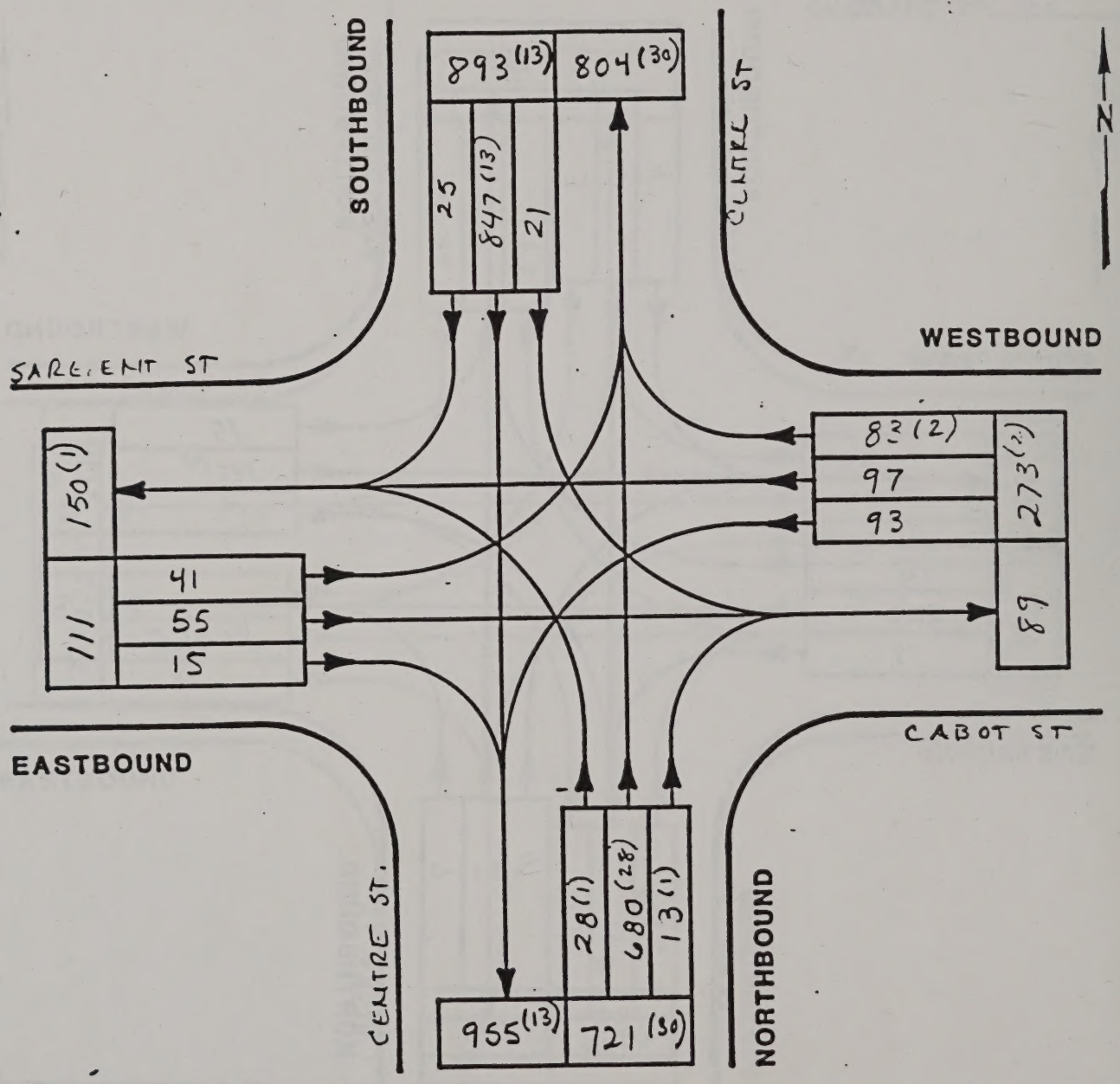
INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON DATE 4/25 DAY of WEEK TUES

INTERSECTION CENTRE ST / CABOT ST / SARGENT ST. JOB No. 2415

CALCULATED BY: MF



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 7:00 – 9:00
CENTRE ST NB	721 (30)	36%	AM / PM PEAK HOUR: = 7.45 - 8.45
CENTRE ST SB	893 (13)	45%	
CABOT ST WB	273 (2)	14%	P.H.F. = 0.99
SARGENT ST - LC	111	5%	
			VEHICLES COUNTED
			ALL VEHICLES XXX 1998
			TRUCKS (XX) 45
TOTAL	1998 (45)	100%	PERCENT TRUCKS 2.3 %

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60 Birmingham Parkway
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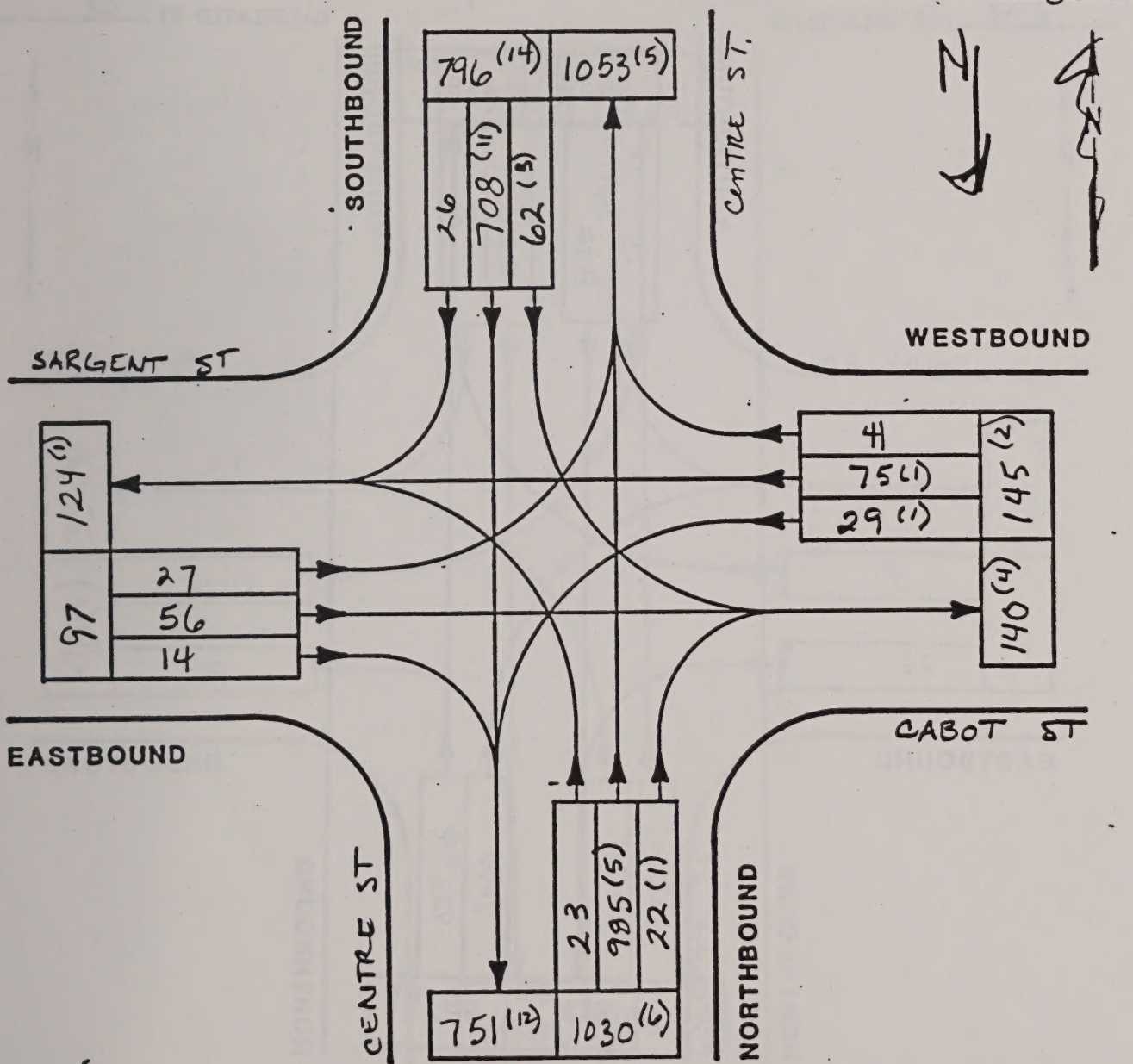
INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON DATE 4/25/89 DAY of WEEK TUES
INTERSECTION CENTRE ST / CABOT ST / SARGENT ST JOB No. 2415
CALCULATED BY: MF



STREET	ENTERING VOLUME	PERCENT OF FLOW
CENTRE ST NB	1030 (6)	50 %
CENTRE ST SB	796 (14)	38 %
CABOT ST WB	145 (2)	7 %
SARGENT ST EB	97	5 %
TOTAL	2068 (22)	100 %

TIME of COUNT = 1600 – 1800
(AM) PM PEAK HOUR: = 1700-1800
P.H.F. = 0.92

VEHICLES COUNTED
ALL VEHICLES XXX 2068
TRUCKS (XX) 22
PERCENT TRUCKS 1.1 %

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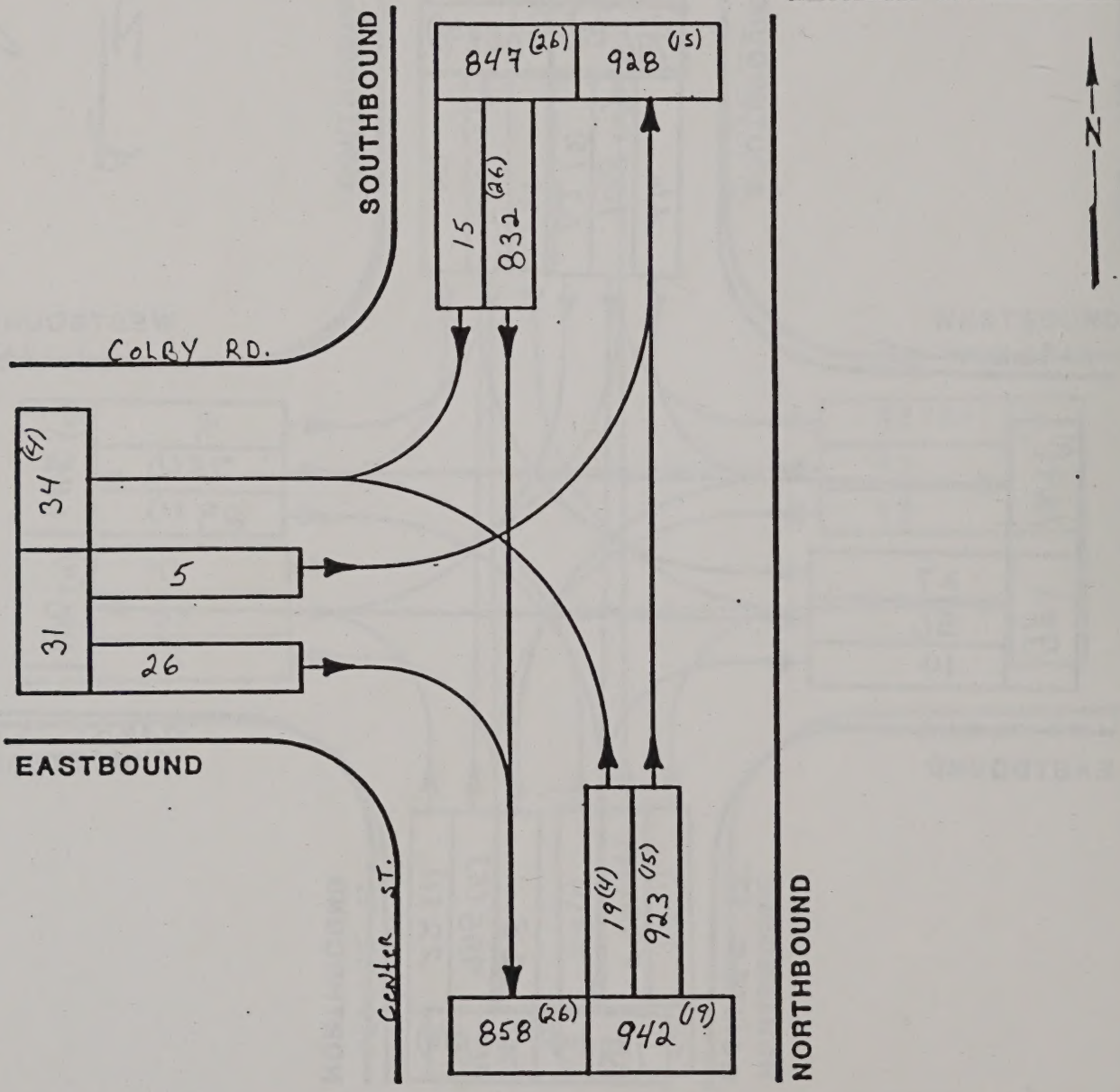
INTERSECTION TURNING MOVEMENT COUNT

CITY Newton MASS DATE 4-25 DAY of WEEK Tues.
INTERSECTION COLBY RD. / Center ST. JOB No. 2415
CALCULATED BY: G.R.



STREET	ENTERING VOLUME	PERCENT OF FLOW
Center ST. NB	942 (19)	52%
Center ST. SB	847 (26)	46%
COLBY RD. EB	31	2%
TOTAL	1820 (45)	100%

TIME of COUNT = 0700 — 0900

(AM) PM PEAK HOUR: = 0800-0900

P.H.F. = .97%

VEHICLES COUNTED

ALL VEHICLES XXX 1820
TRUCKS (XX) 45
PERCENT TRUCKS 2.5 %

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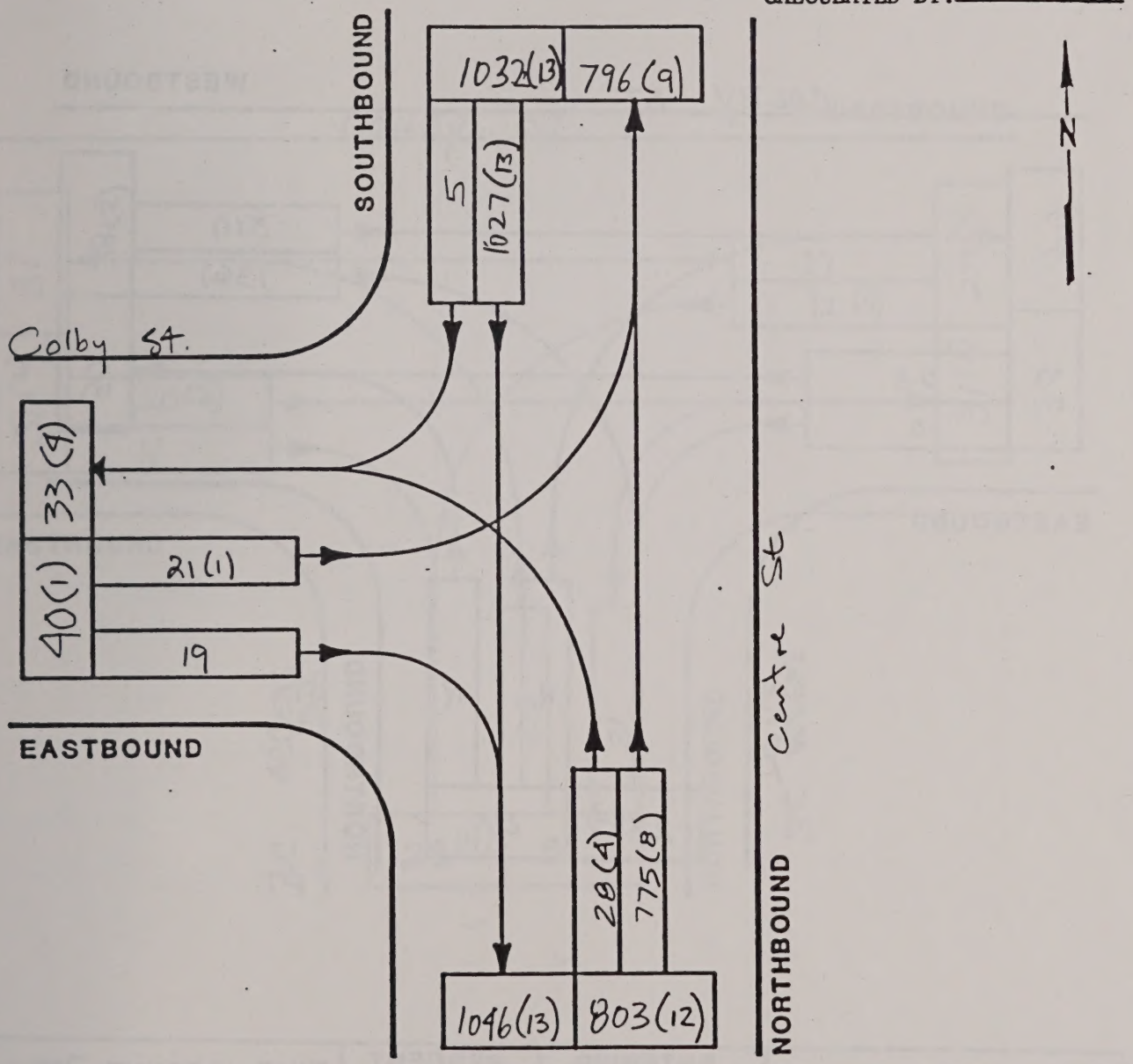
INTERSECTION TURNING MOVEMENT COUNT

CITY Newton Ma DATE 5/1/89 DAY of WEEK Monday
INTERSECTION Centre st & Colby St JOB No. 2415
CALCULATED BY: SES



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 1600 - 1800
CENTRE ST NB	803 (12)	43%	AM / PM PEAK HOUR: = 1645 - 1745
CENTRE ST SB	1032 (13)	55%	
COLBY ST EB	40 (1)	2%	P.H.F. = 0.89
			VEHICLES COUNTED
			ALL VEHICLES XXX 1875
			TRUCKS (XX) 26
TOTAL	1875(26)	100%	PERCENT TRUCKS 1.4 %

Vanasse Hangen Brustlin, Inc.
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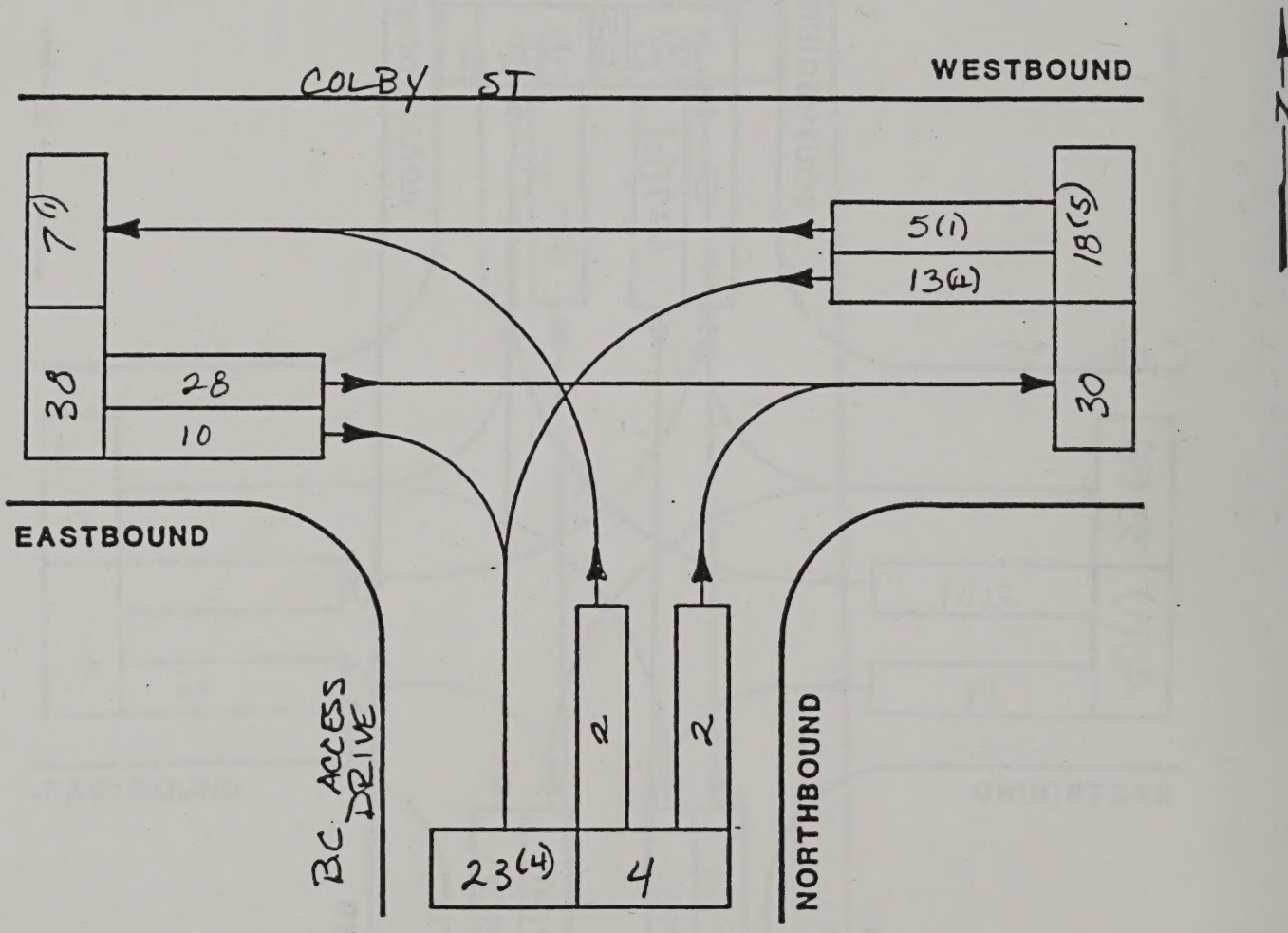
INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON, DATE 5/2/89 DAY of WEEK TUES.
INTERSECTION COLBY ST / B.C. ACCESS DR. JOB No. 2415
CALCULATED BY: MJ



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 700 - 900
COLBY ST EB	38	63%	AM PEAK HOUR: = 800 - 900
COLBY ST WB	18(5)	30%	PM
BC ACCESS DR NB	4	6%	P.H.F. = 0.71
			VEHICLES COUNTED
			ALL VEHICLES XXX 60
			TRUCKS (XX) 5
TOTAL	60(5)	100%	PERCENT TRUCKS 8.3 %

Vanasse Hangen Brustlin, Inc.
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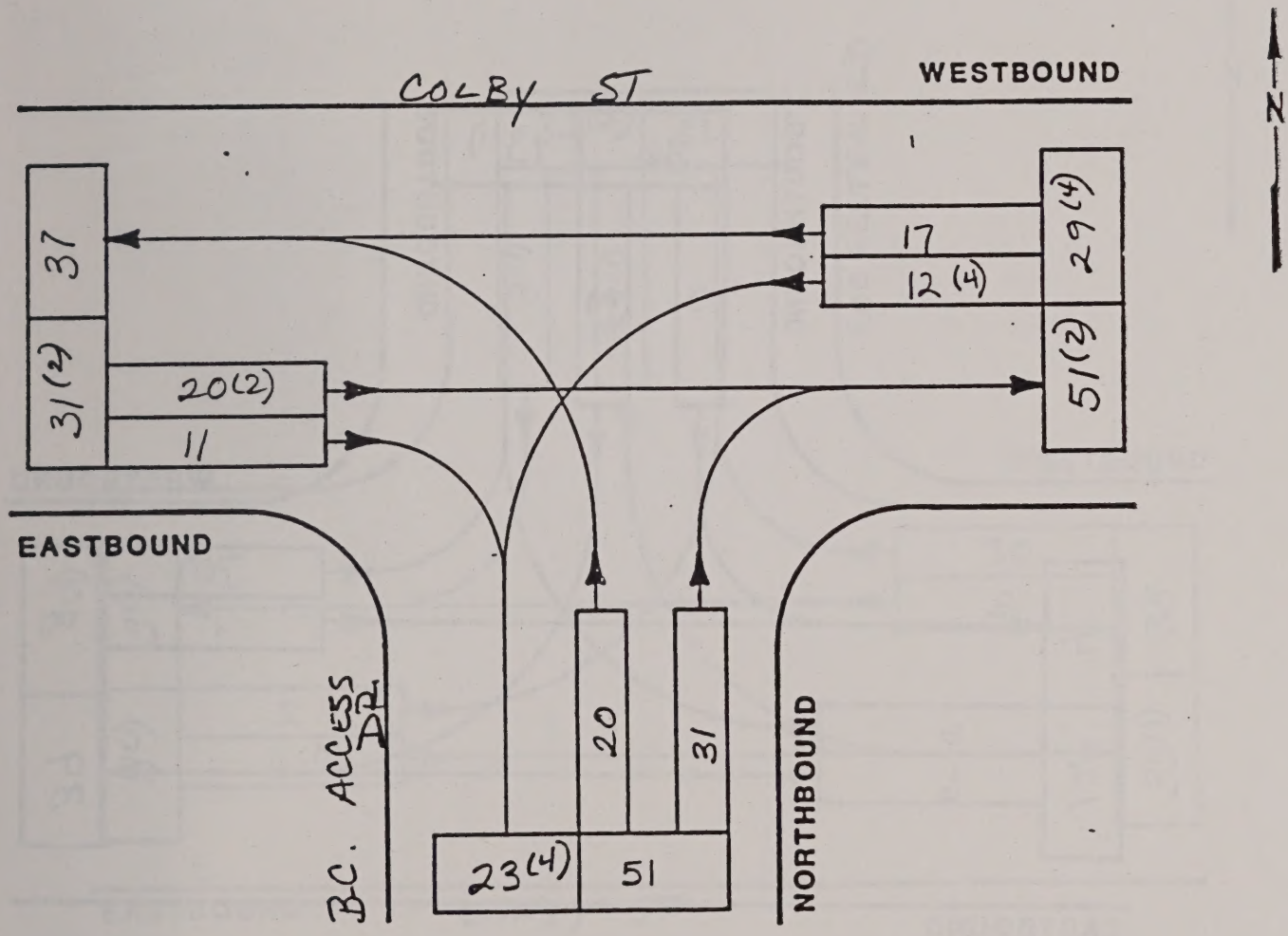
INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON DATE 05/01/89 DAY of WEEK MON.
INTERSECTION COLBY ST / BC ACCESS DR. JOB No. 2415
CALCULATED BY: MJ



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT 1600 - 1800
BC ACCESS DR NB	51	46%	AM PEAK HOUR: = 1600-1700
COLBY ST EB	31(2)	28%	(PM)
COLBY ST WB	29(4)	26%	P.H.F. = 0.90
			VEHICLES COUNTED
			ALL VEHICLES XXX 111
			TRUCKS (XX) 6
TOTAL	111(6)	100%	PERCENT TRUCKS 5.4 %

Vanasse/Hangen
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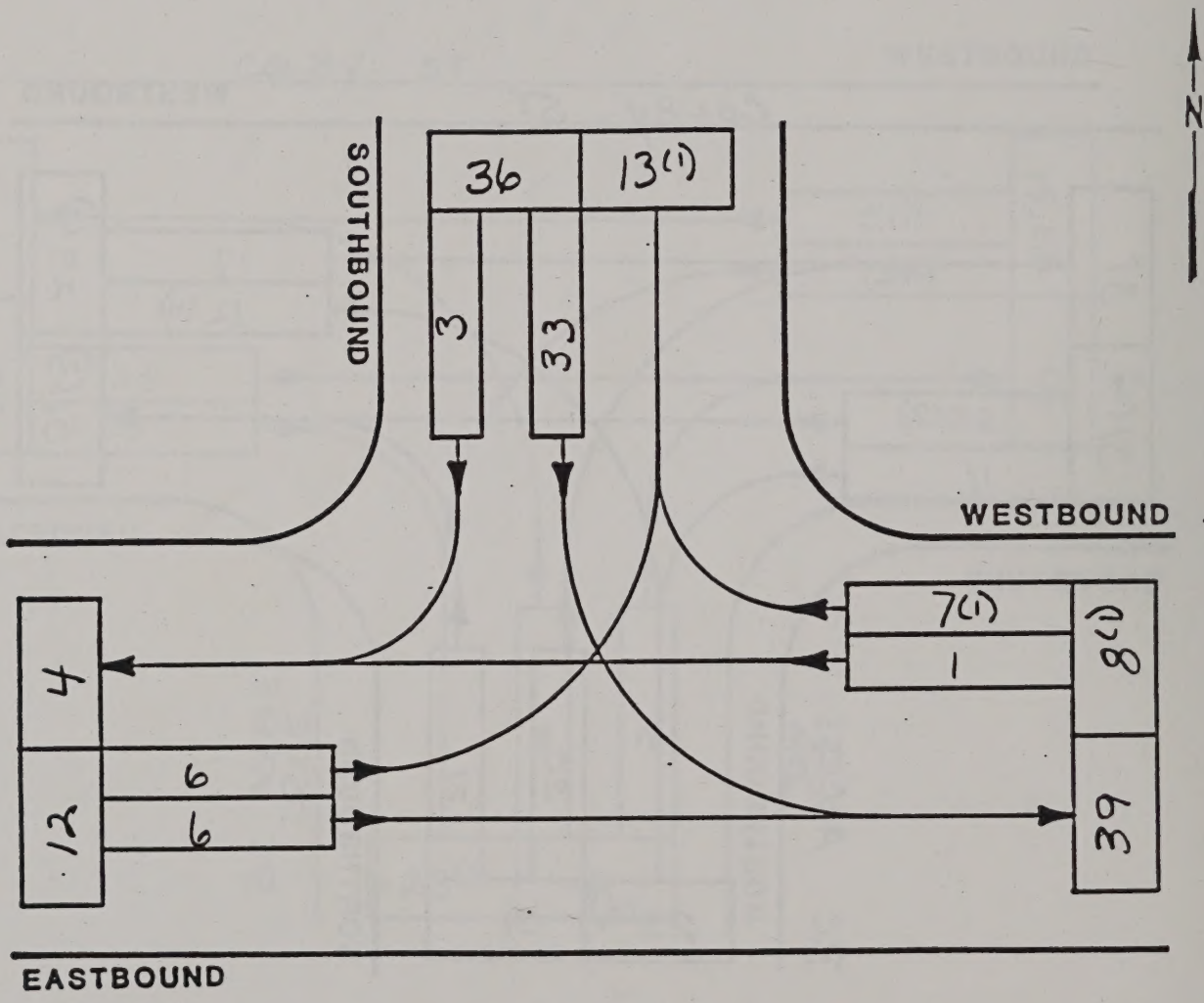
INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON DATE 5/2/89 DAY of WEEK TUES
INTERSECTION COLBY ST / ROCHESTER ST JOB No. 2415
CALCULATED BY: MZ



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 7^00 - 9^00
COLBY ST EB	12	22%	AM / PM PEAK HOUR: = 8^00 - 9^00
COLBY ST WB	8(1)	14%	
ROCHESTER ST SB	36	64%	P.H.F. = 0.87
			VEHICLES COUNTED
			ALL VEHICLES XXX 56
			TRUCKS (XX) 1
TOTAL	56(1)	100%	PERCENT TRUCKS 1.8 %

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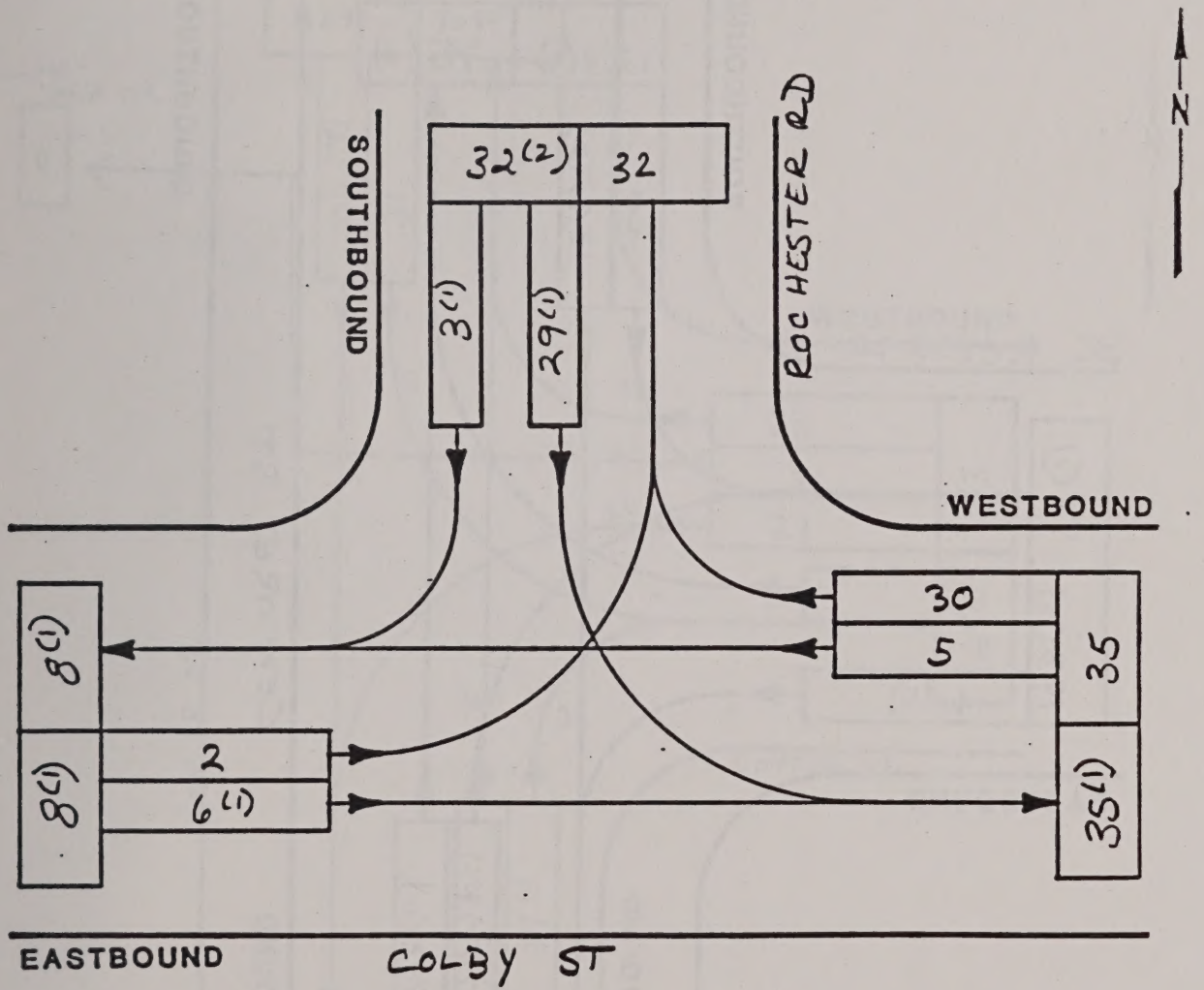
617/783-7000

INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON DATE 5/1/89 DAY of WEEK MON
INTERSECTION COLBY / ROCHESTER RD JOB No. 2415
CALCULATED BY: MZ



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 1600 - 1900
COLBY ST: EB	8(1)	10%	AM / PM PEAK HOUR: = 1600 - 1700
COLBY ST WB	35	47%	
ROCHESTER ST SB	32(2)	43%	P.H.F. = 0.78
			VEHICLES COUNTED
			ALL VEHICLES XXX 75
			TRUCKS (XX) 3
TOTAL	75(3)	100%	PERCENT TRUCKS 4.0 %

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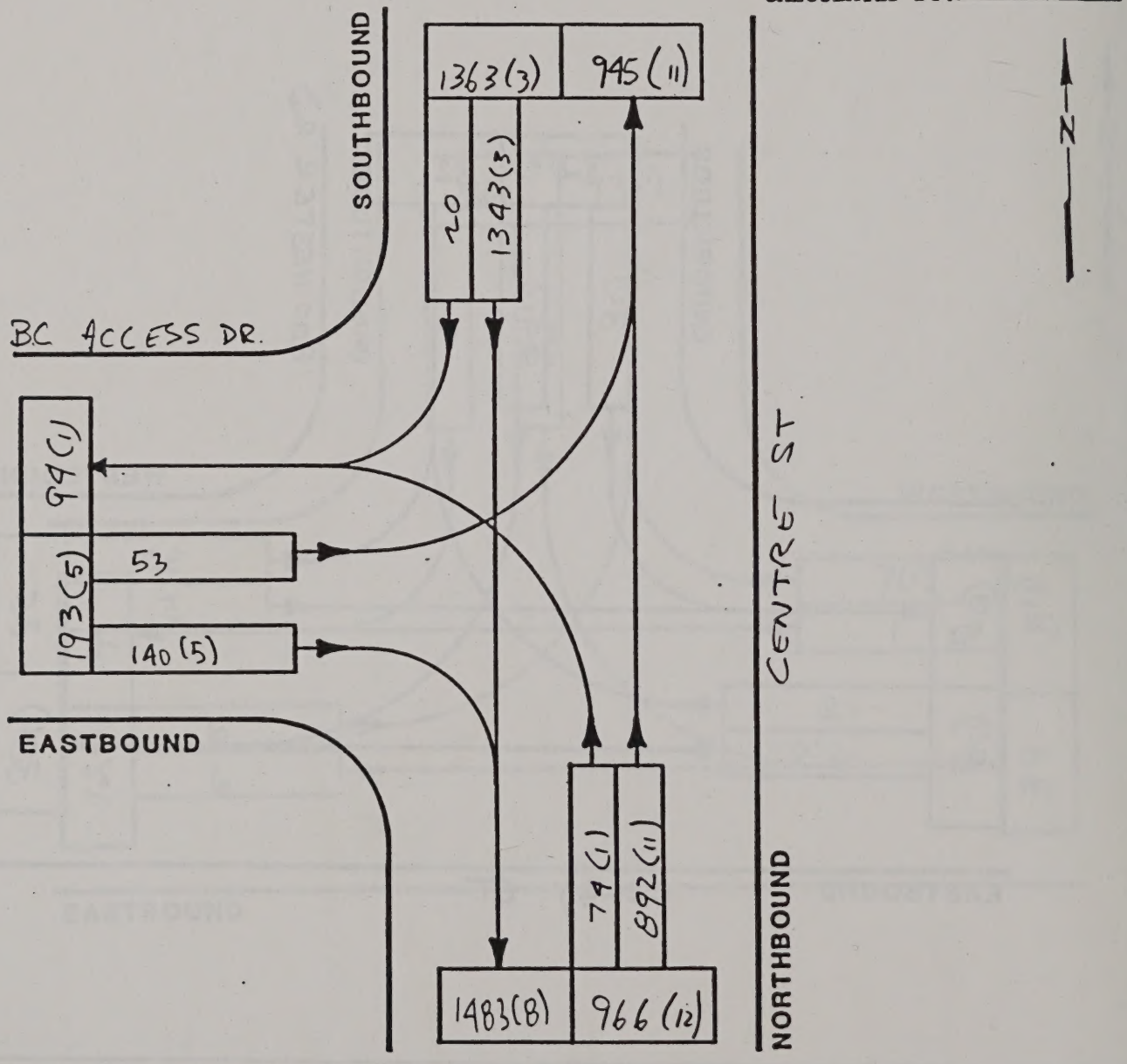
INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON MASS DATE 9/25/89 DAY of WEEK TUESDAY
INTERSECTION CENTRE ST & B.C ACCESS DR JOB No. 2415
CALCULATED BY: SES



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 4:00 – 6:00
B.C. ACCESS DR EB	193(5)	7.8%	AM (PM) PEAK HOUR: = 5:00-6:00
CENTRE ST SB	1363(3)	53.7%	
CENTRE ST NB	966(12)	38.5%	P.H.F. = 0.93
			VEHICLES COUNTED
			ALL VEHICLES XXX 2542
			TRUCKS (XX) 20
TOTAL	2522(20)	100%	PERCENT TRUCKS 0.8 %

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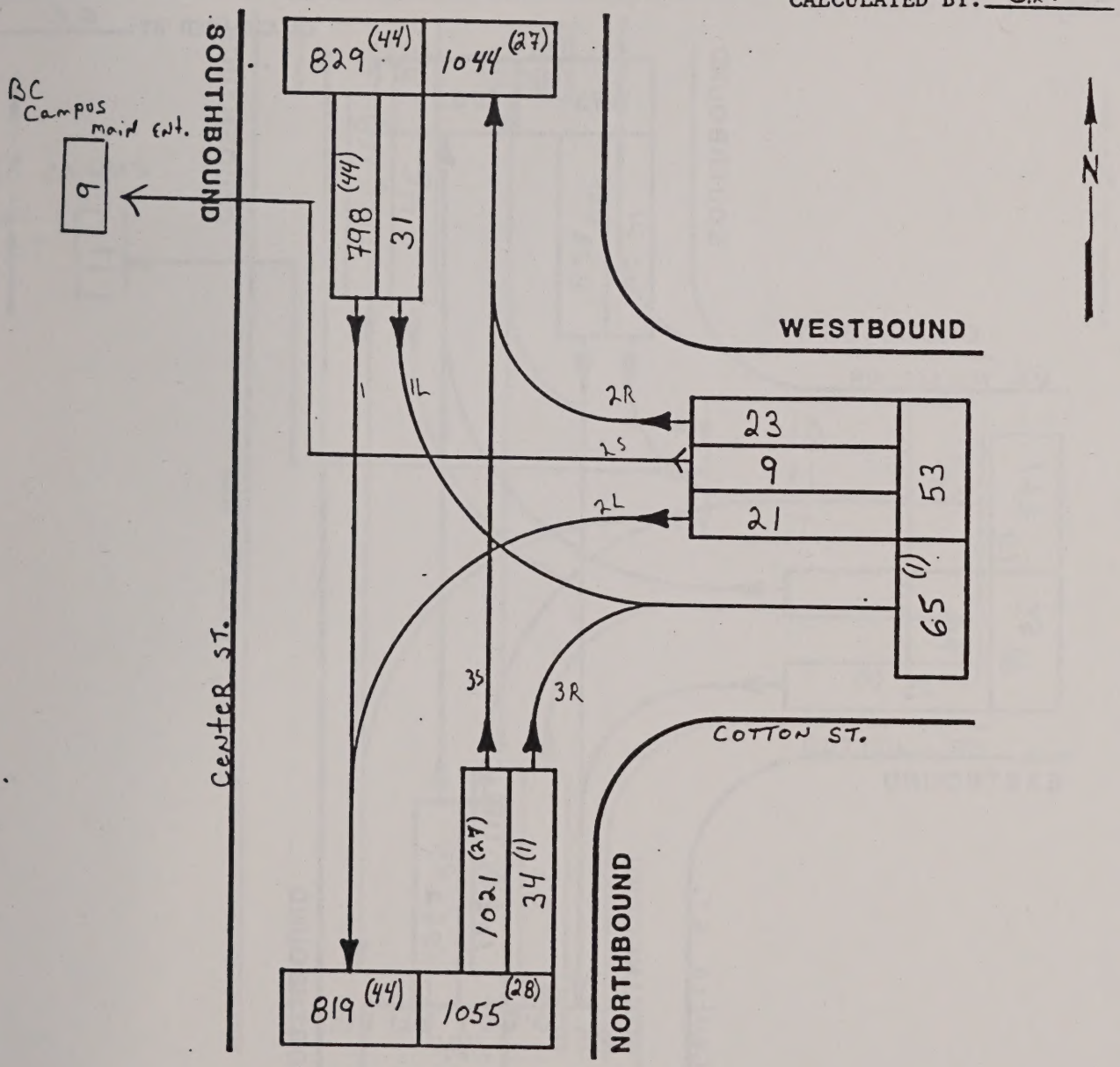
INTERSECTION TURNING MOVEMENT COUNT

CITY Newton MASS DATE 4-25-89 DAY of WEEK Tues
INTERSECTION Center ST. / COTTON ST. JOB No. 2415
CALCULATED BY: G.P.



STREET		ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 0700 – 0900
Center ST.	NB	1055 (28)	54%	(AM) PM PEAK HOUR: = 0745-0845
Center ST.	SB	829 (44)	43%	
COTTON ST	WB	53	3%	P.H.F. = .92%
				VEHICLES COUNTED
				ALL VEHICLES XXX 1937
				TRUCKS (XX) 37
TOTAL		1937 (72)	100%	PERCENT TRUCKS 4.0 %

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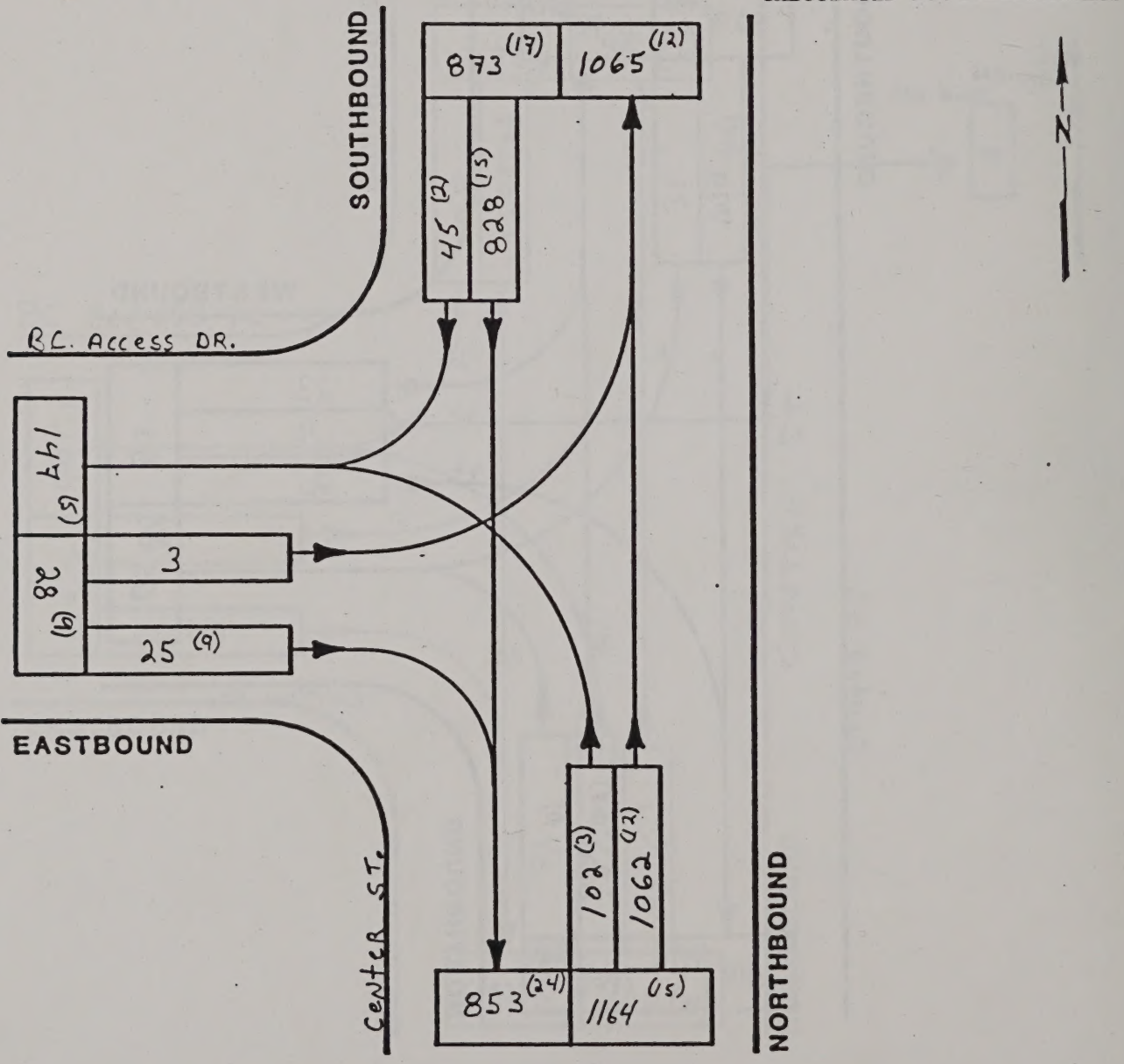
INTERSECTION TURNING MOVEMENT COUNT

CITY Newton MASS DATE 4-25-89 DAY of WEEK Tues.
INTERSECTION Center ST w/ B.C. Access DR. JOB No. 2415
CALCULATED BY: G.R.



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 0700 – 0900
Center ST. NB	1164 (45)	57%	(AM) PM PEAK HOUR: = 0745-0845
Center ST. SB	873 (17)	42%	
BC Access DR EB	28 (9)	1%	P.H.F. = .96 %
			VEHICLES COUNTED
			ALL VEHICLES XXX 2065
			TRUCKS (XX) 41
TOTAL	2065 (41)	100%	PERCENT TRUCKS 2.0 %

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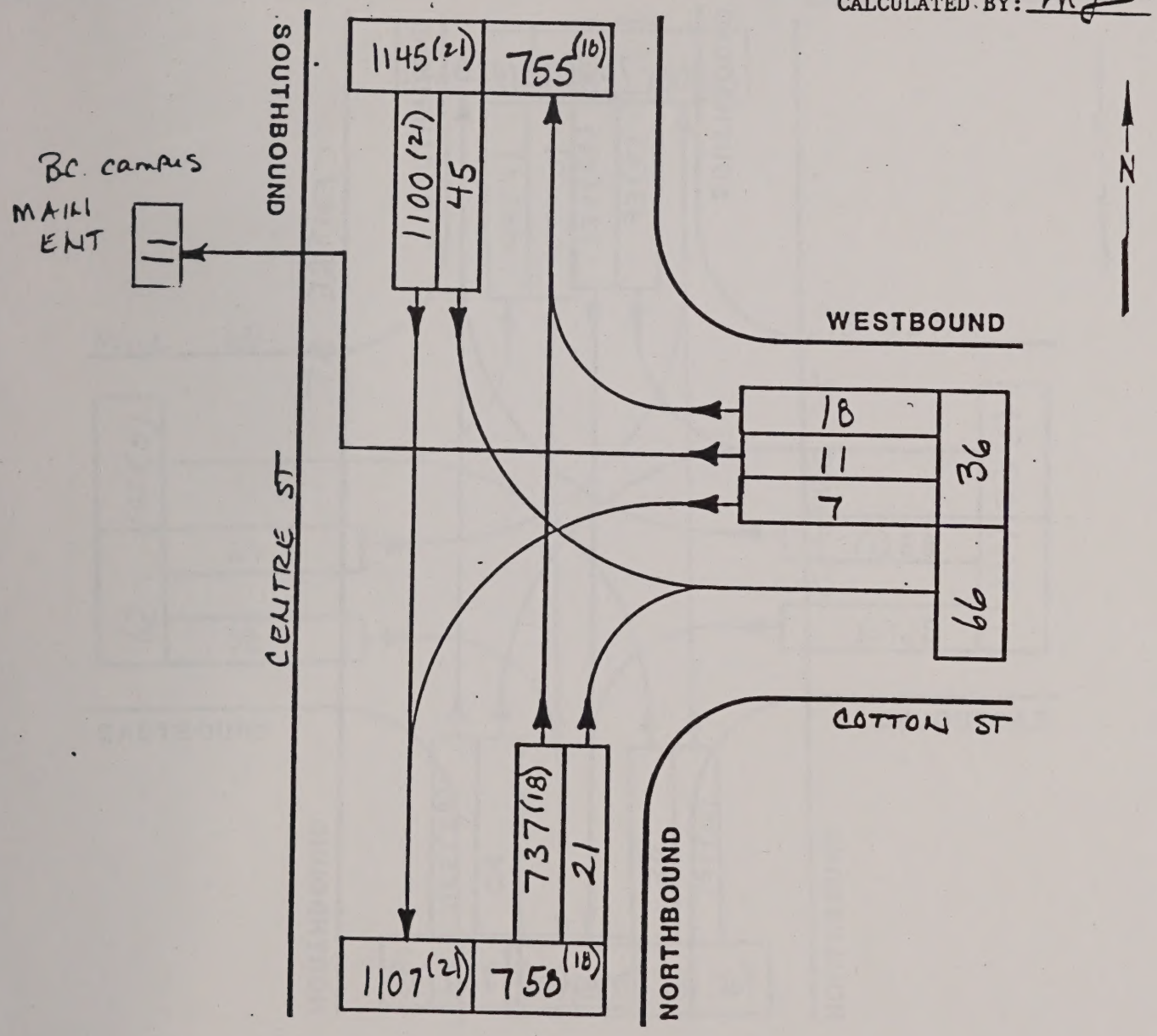
INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON DATE 4/25/89 DAY of WEEK TUES
INTERSECTION CENTRE ST / COTTON ST JOB No. 2415
CALCULATED BY: MJ



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 1600 – 1800
CENTRE ST NB	758 (18)	39%	AM (PM) PEAK HOUR: = 1100 - 1800
CENTRE ST SB	1145 (21)	59%	
COTTON ST WB	86	2%	P.H.F. = 0.93
			VEHICLES COUNTED
			ALL VEHICLES XXX 1939
			TRUCKS (XX) 39
TOTAL	1939 (39)	100%	PERCENT TRUCKS 2.0 %

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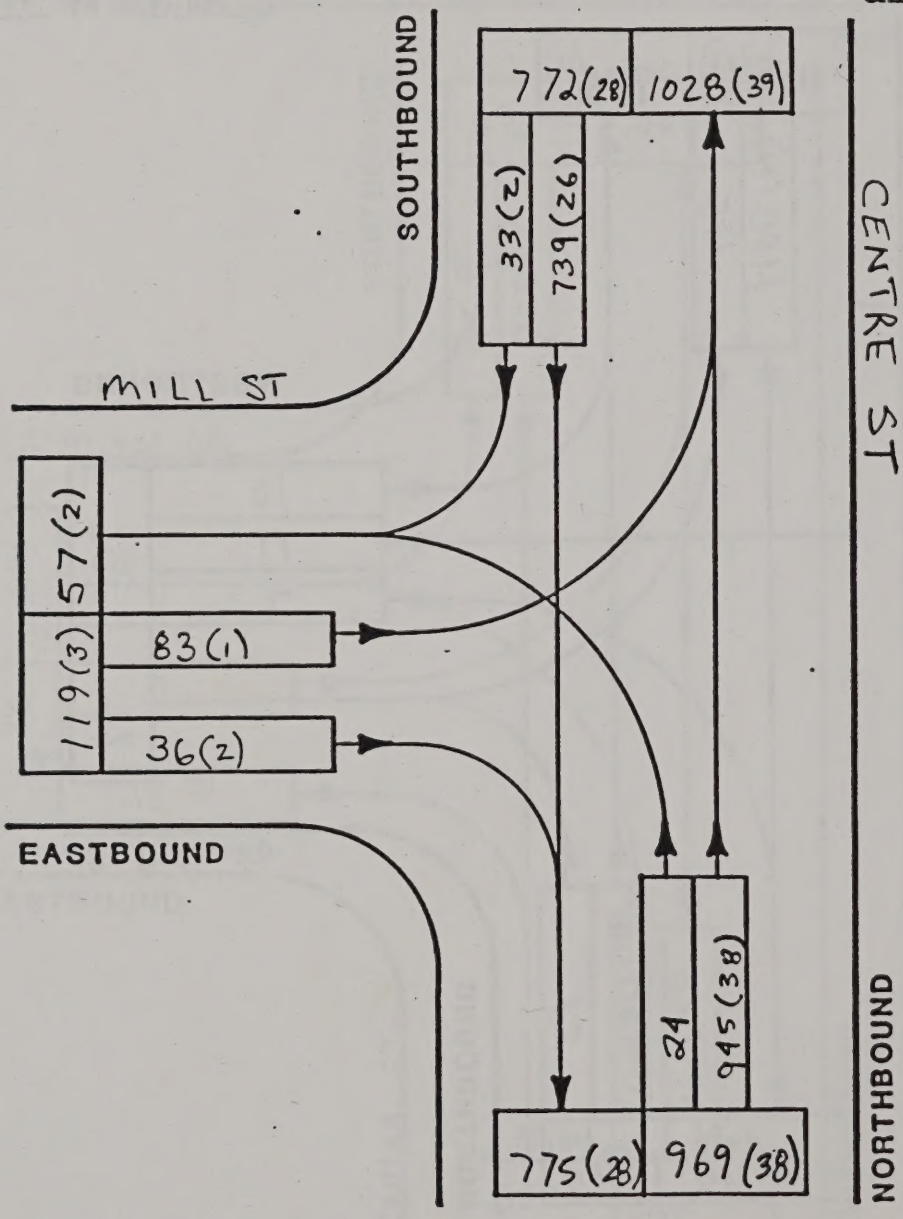
INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON MA DATE 4/25/89 DAY of WEEK TUESDAY
INTERSECTION CENTRE ST & MILL ST JOB No. 2915
CALCULATED BY: SES



STREET	ENTERING VOLUME	PERCENT OF FLOW
CENTRE ST NB	969(38)	52.2%
CENTRE ST SB	772(28)	41.5%
MILL ST EB	119(3)	6.3%
TOTAL	1860(69)	100%

TIME of COUNT = 7:00 – 9:00
(AM) PM PEAK HOUR: = 7:45-8:45
P.H.F. = 0.94

VEHICLES COUNTED
ALL VEHICLES XXX 1860
TRUCKS (XX) 69
PERCENT TRUCKS 3.7 %

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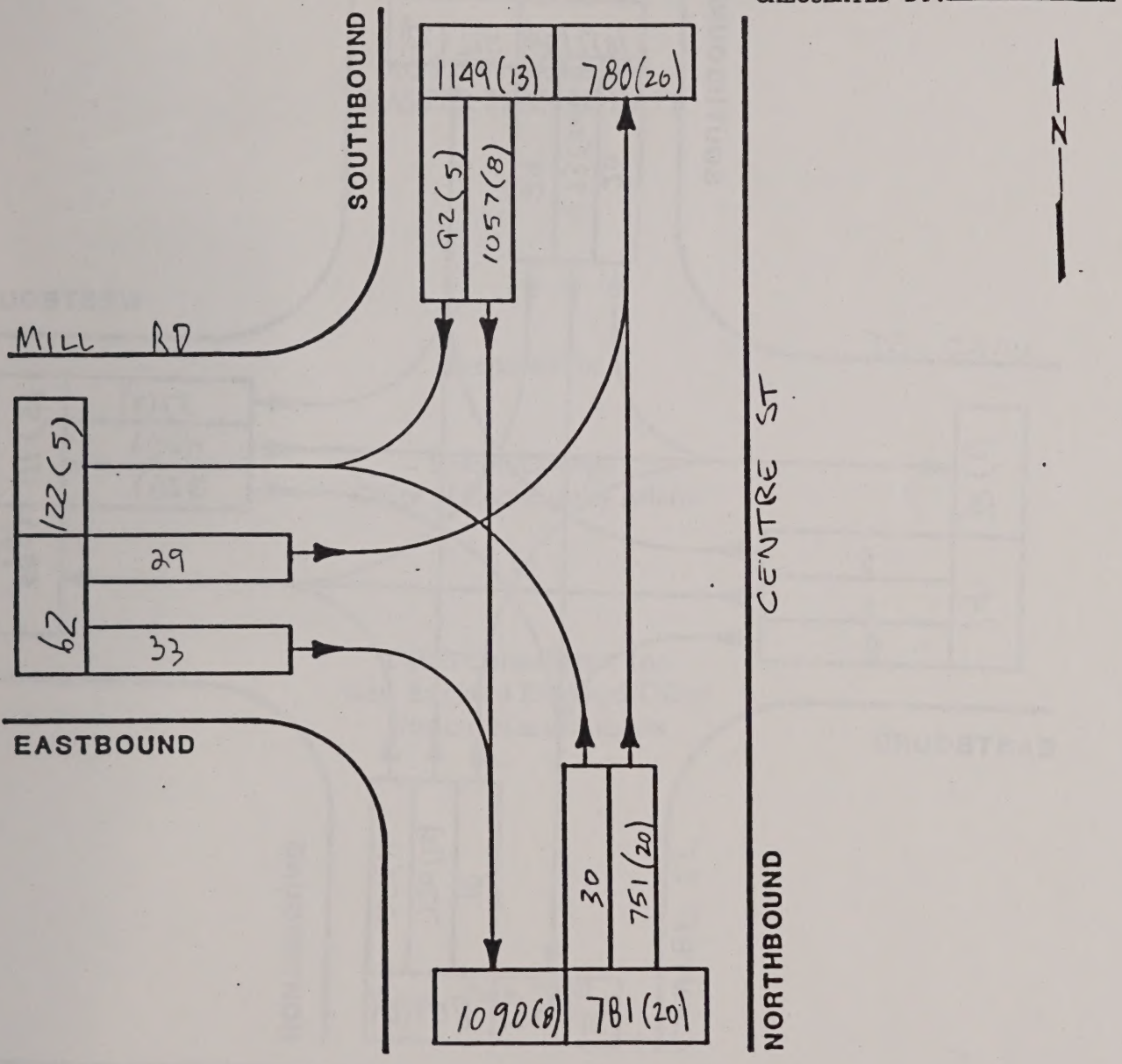
INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON MASS DATE 4/25/89 DAY of WEEK TUESDAY
INTERSECTION CENTRE ST & MILL RD JOB No. 2415
CALCULATED BY: SES



STREET	ENTERING VOLUME	PERCENT OF FLOW
MILL RD EB	62	3.1%
CENTRE ST SB	1149(13)	57.4%
CENTRE ST NB	781(20)	39.5%
TOTAL	1992(33)	100%

TIME of COUNT = 1600 – 1800
(AM) (PM) PEAK HOUR: = 1700-1800
P.H.F. = 0.98
VEHICLES COUNTED
ALL VEHICLES XXX 2025
TRUCKS (XX) 33
PERCENT TRUCKS 1.6 %

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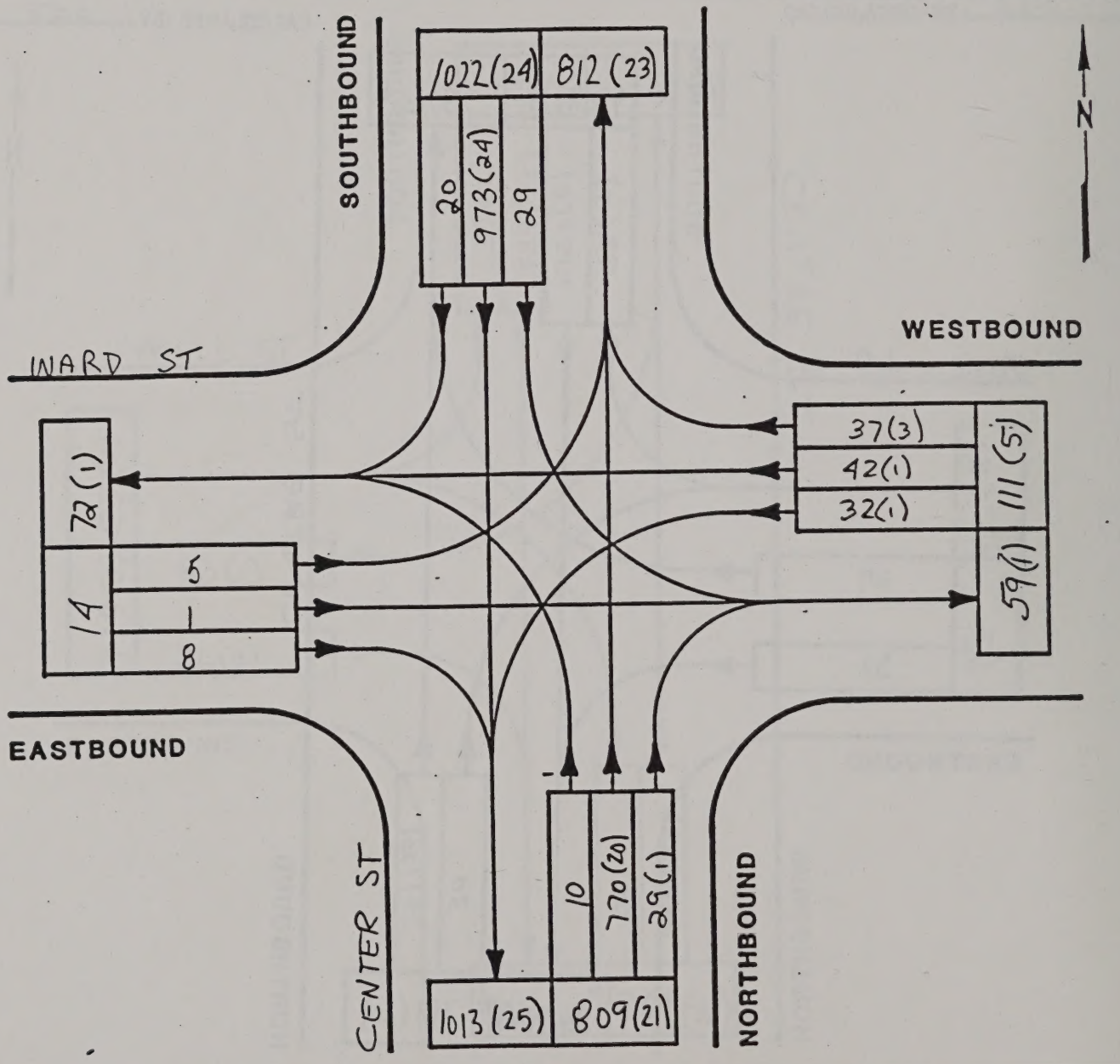
INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON MASS DATE _____ DAY of WEEK WEDNESDAY

INTERSECTION CENTRE ST & WARD ST JOB No. 2415

CALCULATED BY: SES



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 1600 – 1800
WARD ST EB	14	0.7%	AM / ~~PM~~ PEAK HOUR: = 1700-1800
CENTRE ST SB	1022 (24)	52.1%	
WARD ST WB	111 (5)	5.8%	P.H.F. = 0.96
CENTER ST NB	809(21)	41.4%	
			VEHICLES COUNTED
			ALL VEHICLES XXX 2006
			TRUCKS (XX) 50
TOTAL	1956(50)	100%	PERCENT TRUCKS 2.5 %

Traffic Impact Study

BOSTON COLLEGE
MASTER PLAN UPDATE

Prepared for

Boston College
Office of Community Affairs

by

TAMS Consultants, Inc.
New England Regional Office
Boston, Massachusetts

July, 1990

Vanasse Hangen Brustlin, Inc.
60 Birmingham Parkway
Boston, Massachusetts 02135
617/783-7000

Consulting Engineers
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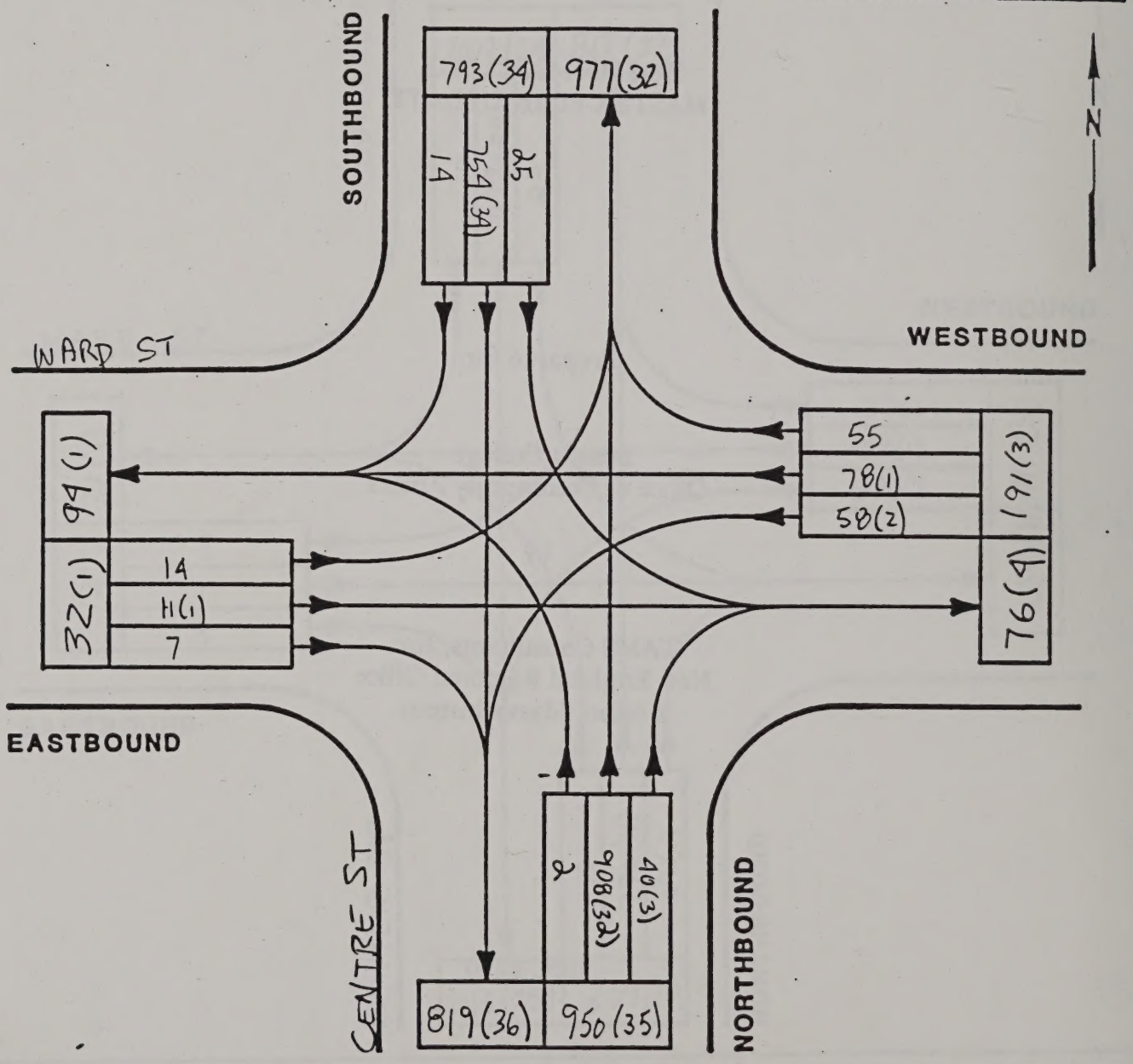
INTERSECTION TURNING MOVEMENT COUNT

CITY NEWTON MASS DATE 9/26/89 DAY of WEEK WEDNESDAY
INTERSECTION CENTRE ST & WARD ST JOB No. 2415
CALCULATED BY: SES



STREET	ENTERING VOLUME	PERCENT OF FLOW	TIME of COUNT = 7:00 – 9:00
WARD ST EB	32(1)	1.6%	(AM) PM PEAK HOUR: = 8:00-9:00
CENTRE ST SB	793(34)	40.6%	
WARD ST NB	191(3)	9.5%	P.H.F. = 0.96
CENTRE ST NB	950(35)	48.3%	
			VEHICLES COUNTED
			ALL VEHICLES XXX 2039
			TRUCKS (XX) 73
TOTAL	1966(73)	100%	PERCENT TRUCKS 3.6 %

BOSTON COLLEGE
MASTER PLAN UPDATE

TRAFFIC IMPACT REPORT

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Appendix A - Trip Generation Calculations

CHAPTER 1

INTRODUCTION

In October 1989, Boston College prepared a draft Master Plan for their campuses located in Chestnut Hill and Newton. This master plan incorporated a series of improvements within the existing campus boundaries, while holding the enrollment steady. As shown in Figure 1, the Chestnut Hill Campus is primarily composed of the Upper Campus which is mainly student residences, the Middle Campus which accommodates most of the academic facilities and the adjacent Lower Campus, located in Brighton and devoted to recreational facilities, dormitories and module housing. By 1995, a series of improvements are proposed for the Lower Campus, including a new Campus Center, a parking garage, and student dormitory.

The Campus Center will supplement the existing center and will house the Book Store Annex, Mail Room, Student Government Offices, and other student facilities. The proposed dormitory will have 600 new beds, although it will displace 60 existing beds. Students who currently travel to campus, either by MBTA or automobile, will be housed in this dormitory, thus reducing the number of commuter students. The new parking garage for use by faculty, staff, and campus service vehicles, will have capacity for approximately 400 - 500 vehicles. The new structure, however, will replace 100 existing surface parking spaces. The impacts expected from this proposed Lower Campus development are presented in this report.

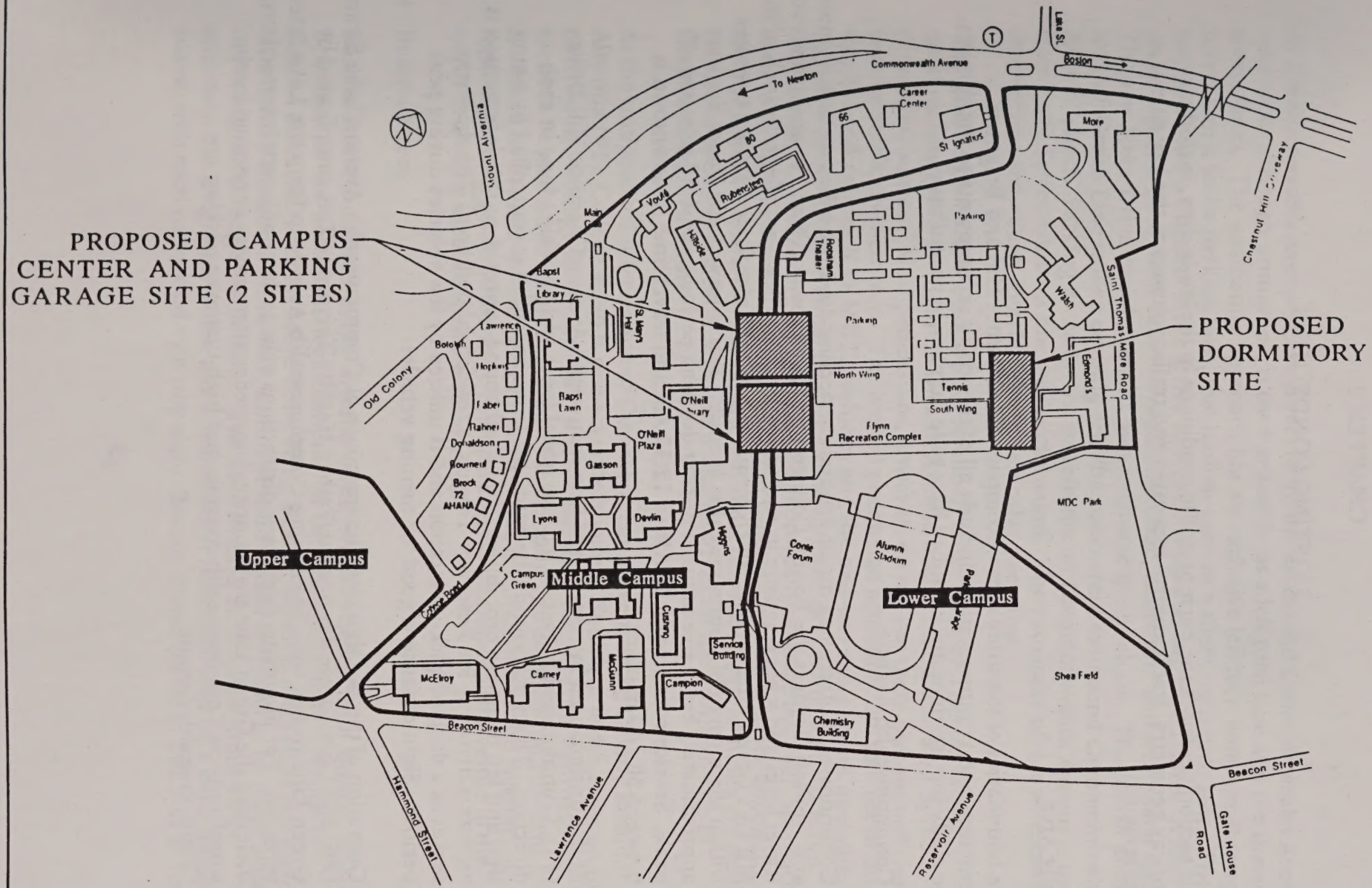


Figure 1
Study Area

CHAPTER 2

EXISTING CONDITIONS

This section describes the current traffic conditions in the study area, including roadway geometry, traffic control measures and traffic volumes at the key study intersections.

Study Area

The boundaries of the study area encompass the Chestnut Hill and Brighton Campuses, and key intersections include all of the major access points to the campus. The study intersections are identified by a code number in parentheses.

- Commonwealth Avenue

  Commonwealth Avenue, a major arterial connecting downtown Boston to Brighton and Newton, borders the Boston College campus on the north and typically has two travel lanes and a parking lane in each direction. The Boston College Branch of the MBTA's Green Line service, which terminates at the Lake Street station, operates within the median of Commonwealth Avenue. Trains leave Lake Street Station approximately every five minutes during the peak periods, and 8-10 minutes off-peak. Service runs from 5:00 AM to 12:30 AM and travel time to downtown is between 30 - 40 minutes.

  At the unsignalized intersection of Commonwealth Avenue/Chestnut Hill Drive (#1), Commonwealth Avenue has two travel lanes and a parking lane in each direction. The northbound Chestnut Hill Drive approach is controlled by a stop sign and left turns are prohibited. The southbound approach at this intersection is an access driveway for Reservoir Towers, a residential building. The driveway serves as a drop-off/pick-up location and is utilized by few vehicles during peak periods. Sight distance is good for turning vehicles.

  Operation of the two signalized intersections at Commonwealth Avenue/Lake Street (#6) and Commonwealth Avenue/Father Herlihy Terrace (#7) is complicated by Green Line trolley vehicles crossing Commonwealth Avenue to/from the Lake Street terminal. For motorists, numerous distractions exist at these adjacent intersections, including the Green Line trolley operation, pedestrian activity generated by the storefronts on Commonwealth Avenue, and high turnover parking on Commonwealth Avenue.

At Commonwealth Avenue/Lake Street (#6), the eastbound Commonwealth Avenue approach, although unmarked, is used primarily as a left turn lane and two through travel lanes. The westbound approach has an exclusive left turn lane, two through travel lanes, and a parking lane, that is often used as a short right turn lane. The northbound St. Thomas More Drive approach is used as two travel lanes. A four phase signal is used, with Commonwealth Avenue, eastbound and westbound and St. Thomas More Drive each having its own exclusive green phase. The fourth phase is for the Green Line trolley crossing and the concurrent eastbound Commonwealth Avenue phase. Parking access to the storefronts on Commonwealth Avenue is made from Lake Street, which is one way northbound. The proximity of this access to the intersection sometimes interferes with vehicular operation.

The traffic signal at Commonwealth Avenue/Father Herlihy Terrace (#7) is continuously green for Commonwealth Avenue traffic, unless activated by the pedestrian buttons. Most pedestrians, however, do not use these buttons and choose to cross traffic on their own. The limited pedestrian actuation, the sole use of the southbound approach by MBTA vehicles and the one-way southbound operation of Father Herlihy Terrace combine to limit the number of turning conflicts at this intersection. No lanes are marked on Commonwealth Avenue but each approach is used as two travel lanes. On the westbound Commonwealth Avenues approach, metered parking and a cab stand exist and short term parking violations are routine for this area due to the retail shops and small market on the northern side of Commonwealth Avenue.

At the unsignalized intersection of Commonwealth Avenue/Old Colony Road/Mt. Alvernia (#5), College Road is one-way northbound. Sufficient width exists on the northbound College Road approach and southbound Mt. Alvernia approach for turns to be made from separate lanes. Northbound and southbound left turns are hindered by the heavy volume of through traffic on Commonwealth Avenue, but sight distance is good. A frontage road parallels Commonwealth Avenue to the north providing access to private residences.

- Beacon Street

Beacon Street is another major arterial which provides access from Boston, through Brookline to the Boston College Campus. At the unsignalized intersection of Beacon Street/St. Thomas More Drive (#2), Beacon Street is marked as one travel lane in each direction. However, sufficient width exists for turns to be made without impeding the through traffic flow. The southbound St. Thomas More Drive approach has a right turn lane and a left/through lane separated by a delta traffic island, with each controlled by a stop sign. Beacon Street traffic in this area is heavy

and often causes delay for the St. Thomas More Drive approaches. Gate House Road provides access to a small residential enclave and is controlled by a stop sign. Sight distance is good from all approaches.

Beacon Street/Reservoir Avenue and Beacon Street/parking garage access (#3) operate as one offset unsignalized intersection. Reservoir Avenue is one-way northbound and provides egress from a residential neighborhood. Beacon Street is sufficiently wide for turning and through movements to be made without conflict, although no travel lanes are marked. The egress lanes from the parking garage are almost directly opposite the Reservoir Avenue approach, forming a four way intersection. The entrance to the parking garage, however, is located 30 feet to the east, sometimes causing conflicts between left turning traffic exiting the garage and eastbound Beacon Street traffic turning left into the parking garage. Separate left and right turn lanes are provided for the egress from the parking garage, and no through moves are permitted since Reservoir Avenue is one way northbound. Sight distance is good for all turns.

The signalized intersection of Beacon Street/Hammond Street/College Road (#4) is controlled by two phase signal operation. Beacon Street has two travel lanes in both the eastbound and westbound direction, and although no travel lanes are marked, vehicles use the approaches as a left turn lane, and a through travel lane. College Road is one way northbound, and Hammond Street is one way southbound, north of the intersection. Southbound turn movements from Hammond Street to College Road are made without conflict to the intersection, since the Hammond Street approach has a wide radius left turn lane. The southbound Hammond Street approach has a free right turn lane provided, separated from other traffic movements by a delta traffic island.

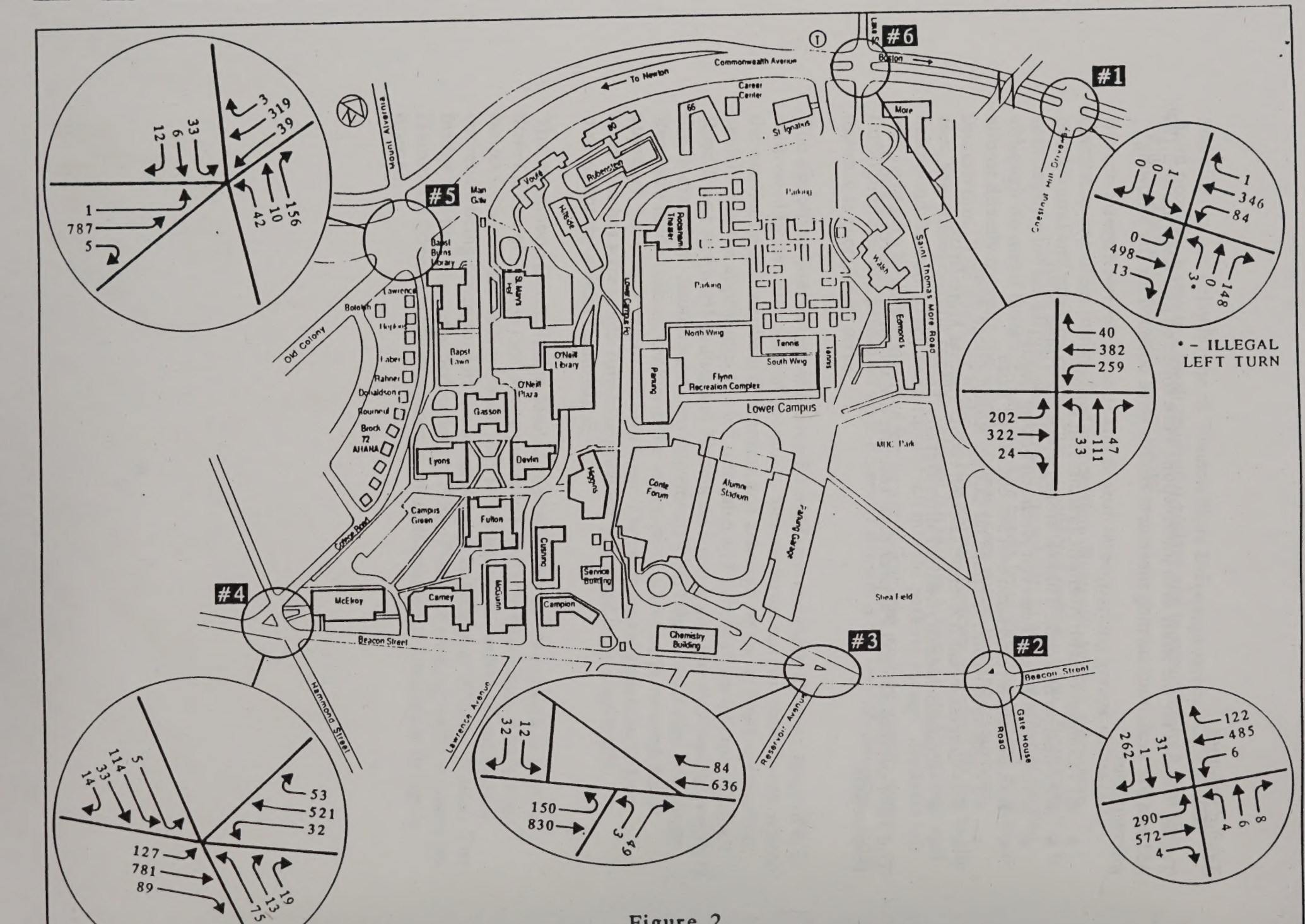
The Hammond Street Bridge, located approximately one mile south of Beacon Street is one of the few local access points to Route 9 in Brookline. The bridge, however, was closed in November 1989 for structural and safety reasons and is currently being redesigned by the Massachusetts Department of Public Works. The bridge will likely be reopened in Spring 1992. Thus, the existing traffic volumes on Hammond Street are low compared to volumes experienced when the bridge is opened.

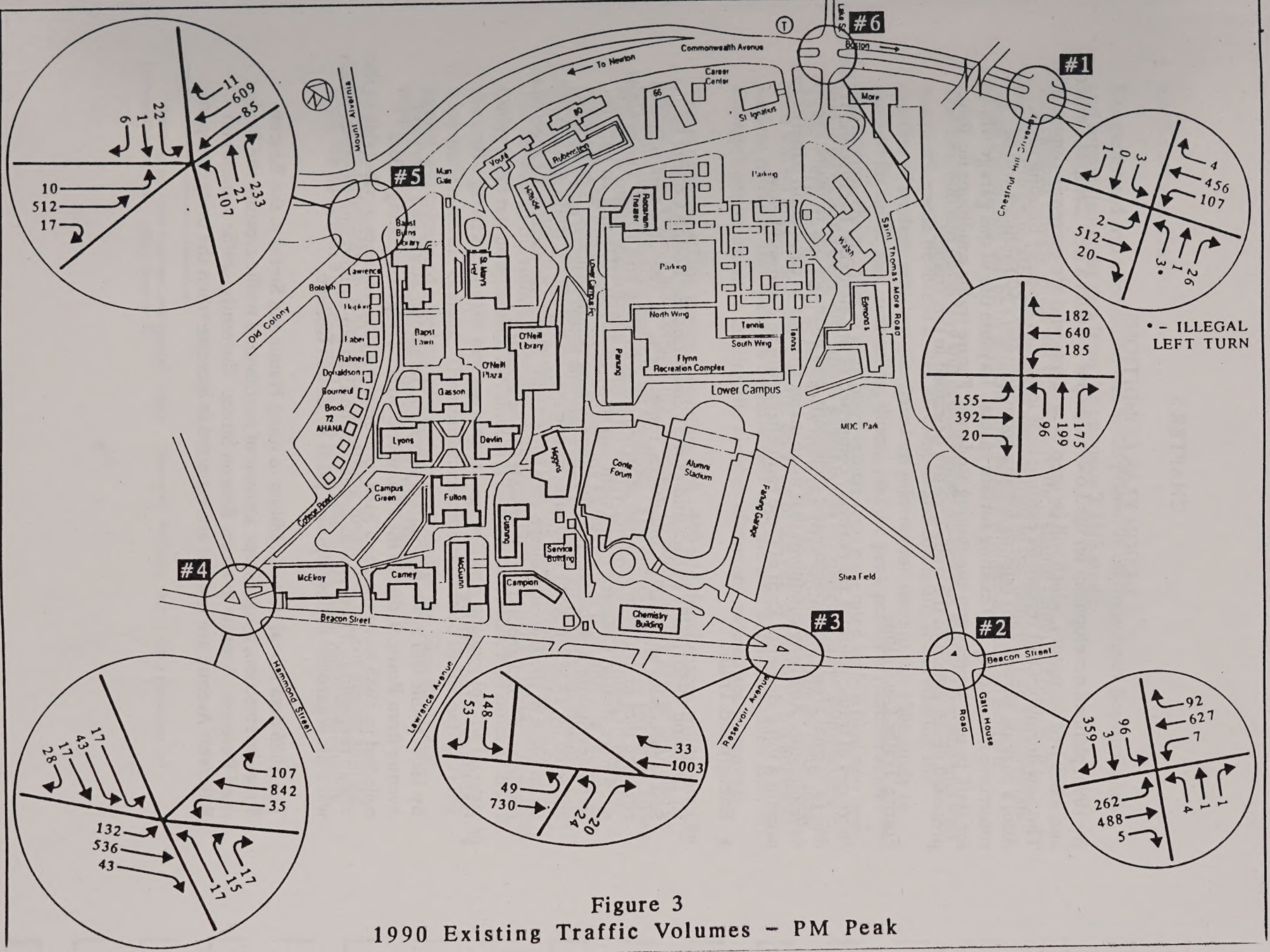
Traffic Volumes

Traffic volumes for the study area intersections were collected by TAMS in April 1990. AM and PM peak hour turning movement counts were obtained for the following intersections:

- #1 - Commonwealth Avenue/Chestnut Hill Drive
- #2 - Beacon Street/St. Thomas More Drive/Gate House Road
- #3 - Beacon Street/Reservoir Avenue/Parking Garage
- #4 - Beacon Street/Hammond Street/College Road
- #5 - Commonwealth Avenue/Old Colony Road/College Road
- #6 - Commonwealth Avenue/Lake Street/St. Thomas More Drive
- #7 - Commonwealth Avenue/Father Herlihy Terrace

The 1990 existing AM and PM peak hour volumes are shown in Figures 2 and 3, respectively.


#1
#2
#3
#4
#5
#6
• - ILLEGAL LEFT TURN
Commonwealth Avenue
To Newton
Boston
Beacon Street
Lower Campus
Upper Campus
Old Colony
Saint Thomas More Road
Chestnut Hill Driveway
Lawrence Avenue
Hammond Street
Reservoir Avenue
Gate House Road
Conte Forum
Alumni Stadium
Shea Field
Chemistry Building
Career Center
Bapst Library
O'Neill Library
O'Neill Plaza
Flynn Recreation Complex
North Wing
South Wing
Tennis
Parking
Campion
Carney
McElroy
Fulton
Lyons
Devlin
Gasson
Campus Green
Service Building
Robsham
Edmonds
Walsh
Higgins
Maloney
Hovey
Lawrence
Rahner
Donaldson
Roumieu
Brock
Hixon
Saint Mary Hall
Rubenstein
Vanderslice
Welch
Stayer
Beacon Street
Conte Forum
Alumni Stadium
Shea Field
Chemistry Building
Lower Campus
Upper Campus
Parking
Tennis
Flynn Recreation Complex
Bapst Library
O'Neill Library
O'Neill Plaza
Gasson
Lyons
Devlin
Fulton
Campus Green
Carney
McElroy
Campion
Service Building
Robsham
Edmonds
Walsh
Higgins
Maloney
Hovey
Lawrence
Rahner
Donaldson
Roumieu
Brock
Hixon
Saint Mary Hall
Rubenstein
Vanderslice
Welch
Stayer
Career Center
Commonwealth Avenue
To Newton
Boston
Old Colony
Saint Thomas More Road
Chestnut Hill Driveway
Lawrence Avenue
Hammond Street
Reservoir Avenue
Gate House Road


#1
#2
#3
#4
#5
#6
Commonwealth Avenue
To Newton
Boston
Career Center
St Ignatius
Mods
Chestnut Hill Driveway
Saint Thomas More Road
Parking
Roberts Theater
Lower Campus Dr
North Wing
Tennis
South Wing
Flynn Recreation Complex
Lower Campus
Edmonds
Main Gate
Bapst Burns Library
St Mary Hall
Bapst Lawn
O'Neill Library
O'Neill Plaza
Gasson
Lyons
Devlin
Higgins
Conte Forum
Alumni Stadium
Parking Garage
MIX Park
Shea Field
Service Building
Chemistry Building
McElroy
Carney
McGuinn
Campion
Fulton
Campus Green
Cushing
Beacon Street
College Road
Hammond Street
Lawrence Avenue
Reservoir Avenue
Gate House Road
Old Colony
Lawrence
Boisvert
Hughes
Faber
Mahner
Donaldson
Bourneuf
Brock
72
AHANA
Vanderslice
Rubenstein
Hanlon
Maloney Field
Parking
Tennis
Parking
Parking
Parking

CHAPTER 3

DESIGN YEAR CONDITIONS

By 1995, planned development on the Lower Campus includes a new Campus Center and a 600 bed dormitory, which will be used by students who are currently commuting. The new dormitory will replace 60 existing beds located in modular housing units. Also, a parking garage with capacity for approximately 400 - 500 vehicles will be constructed, replacing 100 existing surface spaces. Daytime use of this garage will be for staff, faculty, visitors and commuting students. Future traffic conditions for this proposed development in the study area are described in this chapter.

Future Traffic Conditions

Increases in traffic volumes are normally comprised of two elements; background traffic due to normal areawide socioeconomic conditions, and increases due to major specific development. Roadway conditions that force major changes in circulation patterns can present a third element. Each of these components will be discussed below.

- Background Traffic

  In 1978 and 1985, traffic impact studies were conducted for Boston College by Sasaki Associates and TAMS Consultants, respectively. In 1985, the data collected revealed that no traffic growth had occurred between 1979 and 1985. The reasons cited were Boston College's enrollment cap set at 14,000 in 1975 and, in part, to some development stabilization in the surrounding neighborhoods. Traffic data collected by TAMS in April 1990 substantiate that no significant traffic growth has taken place in the Boston College area since 1985. Since this pattern is expected to continue, no background traffic growth will be assumed.

- Hammond Street Bridge

  By 1995, traffic will again have direct access to Hammond Street and Reservoir Avenue from Route 9, due to the Hammond Street Bridge reopening. Data collected in 1985 were used as a basis to project the 1995 volumes attributable to the bridge reopening. These results produced the 1995 No-Build traffic volumes, which will exist regardless of development plans by Boston College.

  The 1985 data reveal that in addition to using Hammond Street to the Beacon Street intersection, a significant amount of northbound traffic crossing the Bridge used Reservoir Avenue to access Beacon Street. Currently, traffic volumes on Reservoir Avenue are low but are expected to increase when the bridge reopens.

- Site Generated Traffic

Site generated trip information was based primarily on input from Boston College and supplemented by data from the previous TAMS study.

The campus center, which will supplement the existing campus center, is not expected to generate any additional vehicle trips to the campus. The predominant use of this facility will be by students and faculty who are already on campus.

The new 600 bed dormitory will provide more on-campus housing for students who would otherwise be forced to live off campus and commute, thus reducing the number of student vehicle trips. Based on information used in the 1985 study to account for mode split, scheduling, illness, and the peak period arrival/departure distribution, the number of peak hour vehicle trips generated by 540 (600 new beds minus 60 existing beds) off-campus students was calculated and are summarized in Table 1. These trips will be *subtracted* from the 1995 No-Build volumes since these trips will no longer be made with the opening of the new dormitory. No additional student trips are anticipated to be associated with the new dormitory given Boston College's commitment to limiting the number of student owned cars on campus.

The proposed parking garage, providing 300 - 400 additional spaces, will be used by faculty, staff, visitors and commuting students. In addition, the garage may also be open to limited evening parking for students. The creation of more parking capacity will allow some who currently park in the surrounding neighborhood to park on campus. The demand for on-street parking in this area is high and it is reasonable to assume that parking spaces currently used by those affiliated with Boston College will still be occupied by other users even when the new parking garage is complete. The *decrease* in the minimal portion of neighborhood parking attributable to Boston College will not be accounted for, since it is likely to be replaced by other users. So, the traffic generated by the new parking garage will only account for the increase in trips made onto the campus. The number of trips generated by the new parking garage was calculated based on information provided in the 1985 study and supplemented by general campus parking information.[1]

Site trips generated by 400 additional parking spaces less the commuter student trips, are shown in Figures 4 and 5, for the AM and PM peak hour, respectively.

---

[1] "Parking for Institutions and Special Events", Edward M. Whitlock, P.E., ENO Foundation for Transportation, Inc., 1982, Chapter 3.

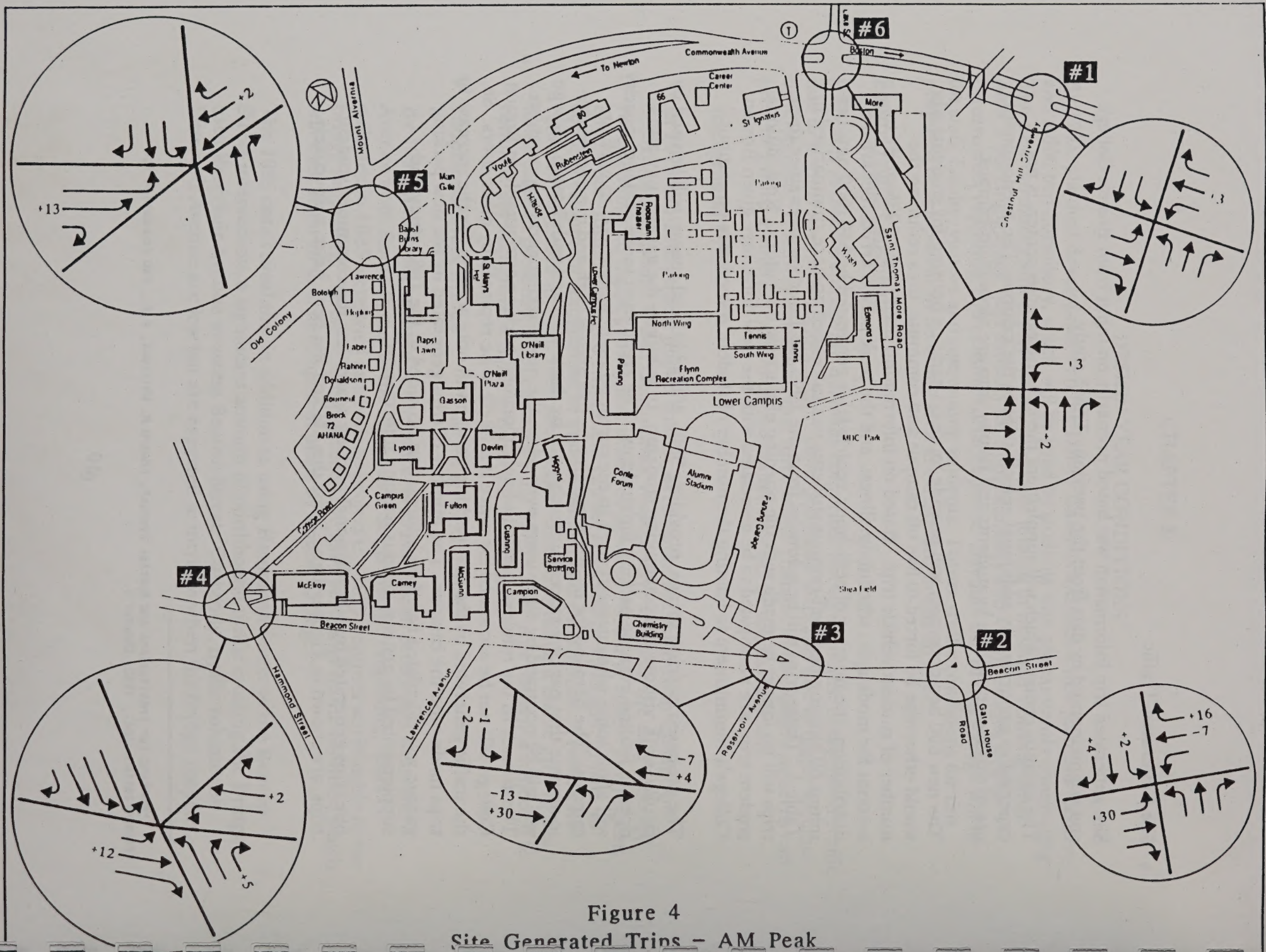


Figure 4
Site Generated Trips – AM Peak

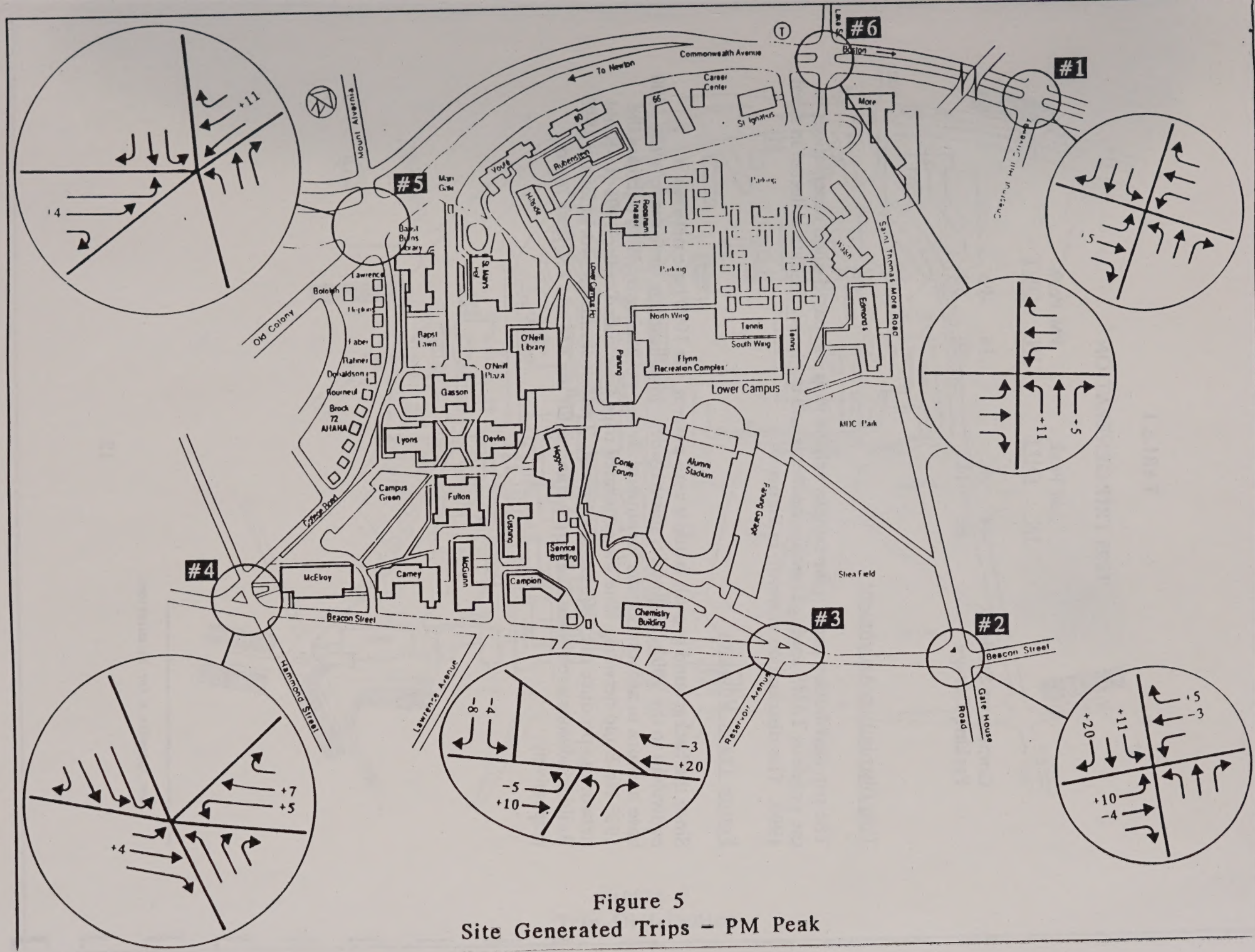


Figure 5
Site Generated Trips – PM Peak

TABLE 1

1995 TRIP GENERATION [2]

	AM Peak		PM Peak	
	IN	OUT	IN	OUT
Commuter Student	-44	-6	-16	-25
Parking Garage	86	11	29	59

Trip Distribution/Assignment

The trip distribution pattern for campus vehicle trips was based upon observations in the previous TAMS study of campus residents and on the traffic data collected in April 1990. This distribution is shown in Figure 6.

Future Traffic Volumes

Since the background growth factor is zero percent, the 1990 base network is equivalent to the 1995 No-Build traffic network. Modifications were made to the 1990 base network to account for the Hammond Bridge reopening by 1995 to create the 1995 No-Build network. The site generated trips were added to the 1995 No-Build network to produce the 1995 Build network. Traffic volumes networks for the 1995 Build conditions are shown in Figures 7 and 8, for the AM and PM peak hours, respectively.

[2]See Appendix A for calculations.

Figure 6
Trip Distribution

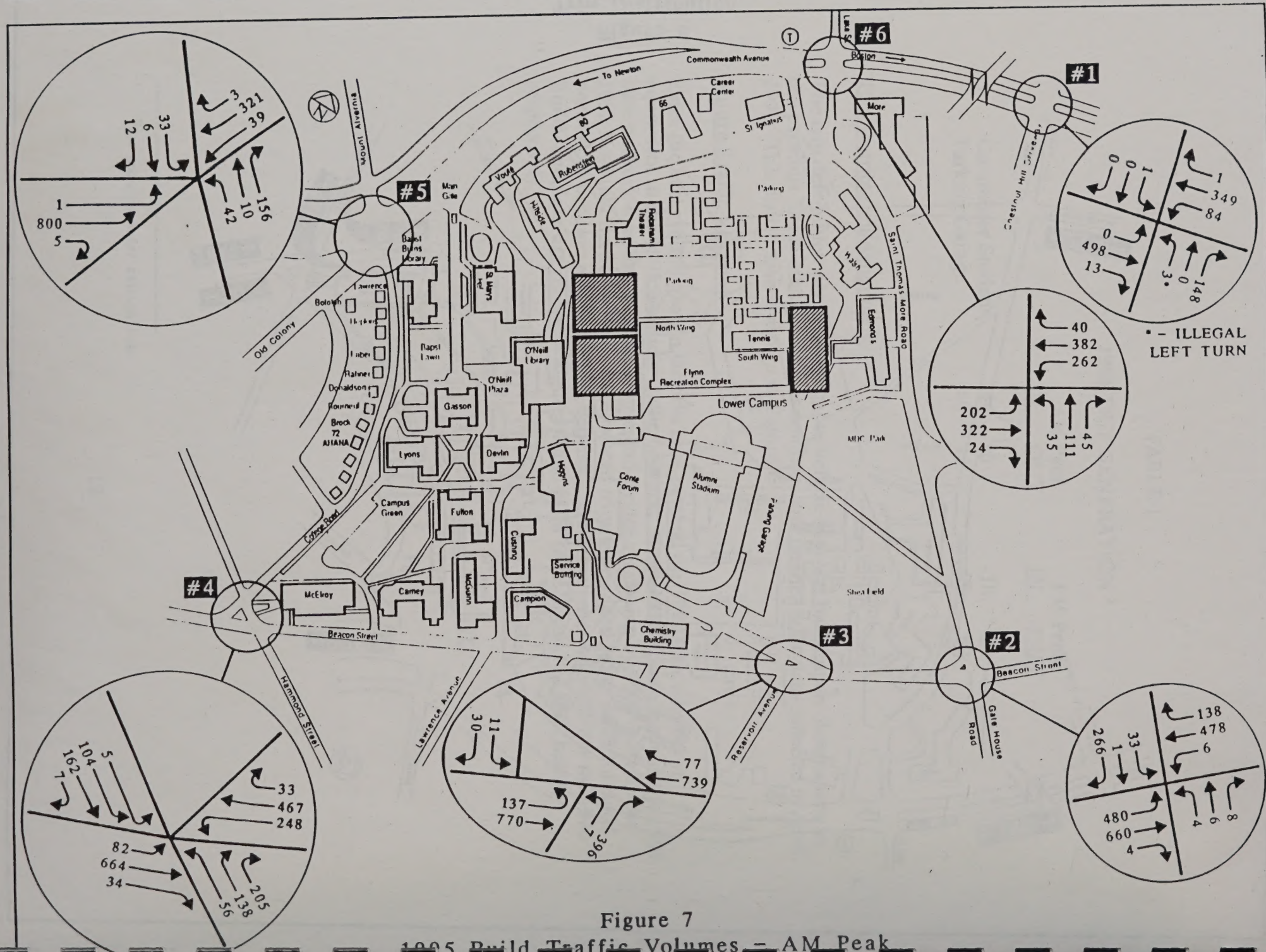


Figure 7
1995 Build Traffic Volumes - AM Peak

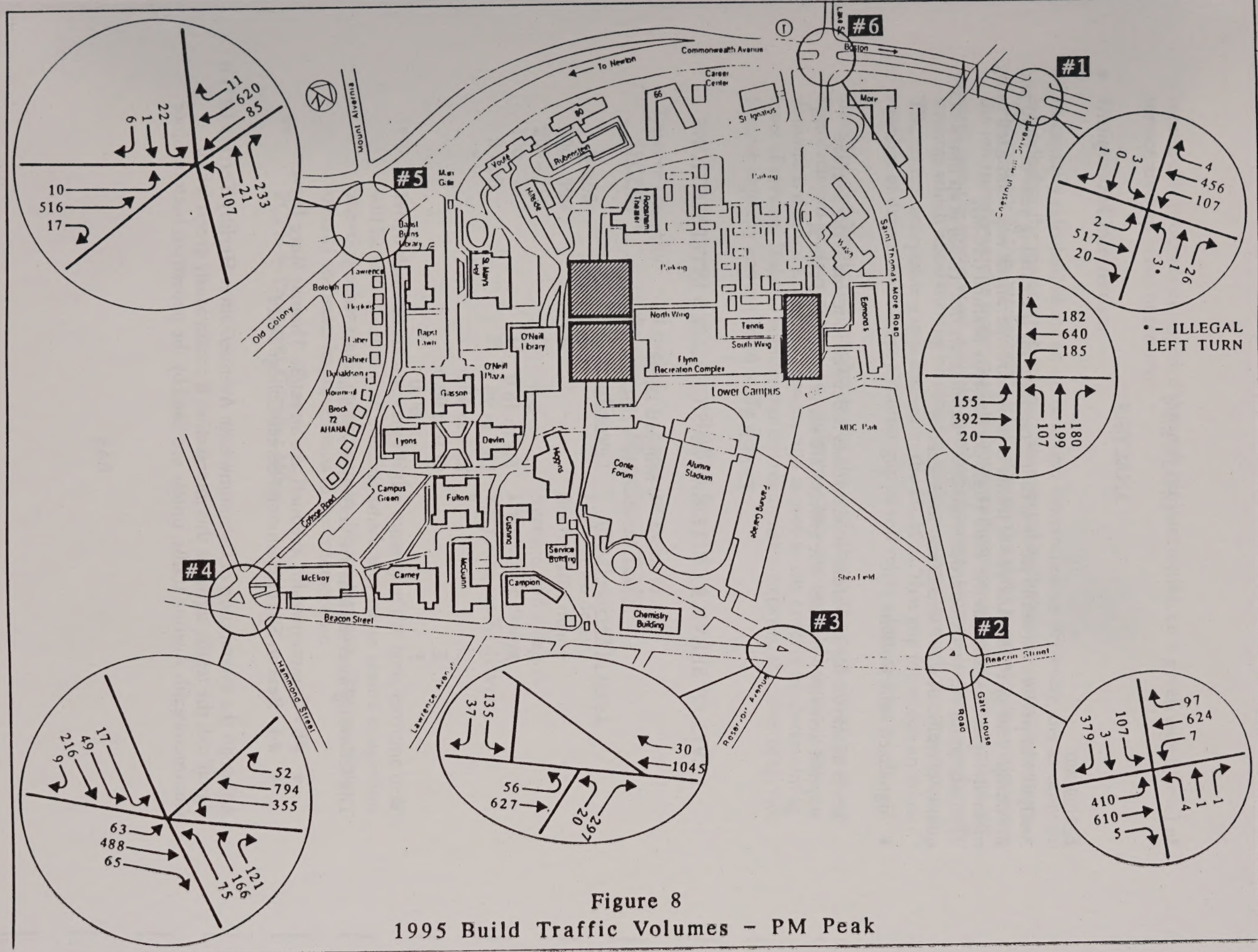


Figure 8
1995 Build Traffic Volumes - PM Peak

CHAPTER 4

ANALYSIS

Evaluation

Analysis was performed at the study area intersections for the existing year of 1990 and the design year of 1995. Analysis of traffic capacity and operations was conducted using methodologies described in the 1985 Highway Capacity Manual (HCM), Transportation Research Board Special 209. "Level of service" (LOS) is an index of the quality of traffic flow for streets and intersections.

- Signalized Intersections

  Level of service for signalized intersections is defined in terms of the average stopped delay per vehicle. The criteria are summarized in Table 2.

TABLE 2

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS)	Stopped Delay Per Vehicle (Seconds)
A	$\leq$ 5.0
B	5.1 to 15.0
C	15.1 to 25.0
D	25.1 to 40.0
E	41.0 to 60.0
F	> 60.0

The following intersections are currently signalized:

- #6 - Commonwealth Avenue/Lake Street/St. Thomas More Drive
- #4 - Beacon Street/Hammond Street/College Road

Although the intersection of Commonwealth Avenue/Father Herlihy Terrace (#7) is signalized, the traffic signal at this intersection is continuously green for all Commonwealth Avenue traffic, unless activated by the pedestrian button. Since

most traffic proceeds unimpeded through his intersection on a green signal, level of service analysis is not necessary.

- Unsignalized Intersections

In capacity calculations for an unsignalized intersection or driveway, the assumption is made that the major street traffic is not affected by the minor street movements. The capacity of the intersection is a function of: the right turns into the major road; the left turns from the major road; through traffic crossing the major road and left turns into the major road; and, the number of acceptable gaps in the through traffic streams which allow turning or crossing vehicles to pass through the intersection. The critical acceptable gap is defined in the HCM as "that gap for which an equal number of drivers will accept a shorter gap as will reject a longer gap."

Based on conflicting traffic volumes and the critical gap, the capacity of the minor approach can be determined. The difference between available capacity and demand is defined as reserve capacity and is used as the criteria for determining level of service. Table 3 summarizes the relationship between the level of service, reserve capacity and expected traffic delay.

TABLE 3

Reserve Capacity (PCPH)**	Level of Service	Expected Delay to Minor Street Traffic
$\geq$ 400	A	Little or no delay
300 - 399	B	Short traffic delays
200 - 299	C	Average traffic delays
100 - 199	D	Long traffic delays
0 - 99	E	Very long traffic delays
*	F	*

* When demand volume exceeds the capacity of the lane, extreme delays will be encountered with queuing which may cause severe congestion affecting other traffic movements in the intersection. This condition usually warrants improvements to the intersection.

** PCPH = Passenger Cars Per Hour

The following intersections are currently unsignalized:

- #1 - Commonwealth Avenue/Chestnut Hill Drive
- #2 - Beacon Street/St. Thomas More Drive
- #3 - Beacon Street/Reservoir Avenue/Parking Garage
- #5 - Commonwealth Avenue/Old Colony Road/College Road

1990 Existing Analysis

The signalized and unsignalized level of service summary for the 1990 Existing and 1995 Build conditions are shown in Table 4 and Table 5, respectively. Additionally, results for a 1995 No-Build condition are shown for the Beacon Street intersections to identify the traffic impacts of reopening the Hammond Street Bridge.

- Signalized

  For the analysis of the two signalized intersections, existing signal timings and phasings were observed in the field. Existing signal timings are not always optimal, and consequently may cause inefficient operation of the intersection. Existing signalized level of service analysis was conducted with both the observed signal timings and "optimized" signal timings which would minimize delay at the intersection. Results from both cases are shown in Table 4. Future signalized analysis was conducted assuming optimal signal timing operation, but any suggested modifications would require coordination with the City of Boston/Newton traffic departments.

  The Beacon Street/Hammond Street/College Road (#4) intersection operates adequately at LOS B during both the AM and PM peak hours. With observed signal timings the Commonwealth Avenue/Lake Street (#6) intersection operates at LOS C during the AM peak and LOS F during the PM peak. With adjustments to the signal timings, however, this intersection would continue to operate at LOS C during the AM peak but could be improved to LOS D in the PM peak. Even though LOS D could be attained during the PM peak, the eastbound Commonwealth Avenue through moves, and northbound St. Thomas More Drive approach would operate at LOS E.

- Unsignalized

  All approaches at Commonwealth Avenue/Chestnut Hill Road (#1) operate at level of service C or better during the AM and PM peak hours. At Commonwealth Avenue/College Road/Mt. Alvernia (#5), the southbound through and left movements operate at LOS E during the AM peak and PM peak hour. During the PM peak hour, the northbound through and left turns operate at LOS E. Since the

volume of traffic using these moves are low compared to the traffic on Commonwealth Avenue and reserve capacity is available, these moves are not considered to be unacceptable. These moves are hindered by the heavy volume of traffic on Commonwealth Avenue.

Due to the heavy volume of traffic on Beacon Street, the two unsignalized study intersections on Beacon Street each have movements which operate deficiently. At Beacon Street/St. Thomas More Drive (#2), the northbound Gate House Road moves and the southbound St. Thomas More through and left moves operate at LOS E or F during both the AM and PM peak hours. While the volume of traffic from Gate House Road is relatively low, the St. Thomas More approach does carry a significant amount of traffic.

At the Beacon Street/Reservoir Avenue/Parking Garage Access (#3), the southbound left turn from the parking garage operates at LOS E and LOS F during the AM and PM peak hours, respectively.

TABLE 4

LEVEL OF SERVICE ANALYSIS

SIGNALIZED

	1990 Existing				1995 Build				1995 No-Build[4]			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS[1]	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
#6 Commonwealth Avenue/Lake Street												
- with existing timing	23.6	C	204.1	F	----		----		----		----	
- with optimization	16.0	B/C	34.5	D[3]	16.1	B/C	36.1	D[3]				
#4 Beacon Street/Hammond/College	7.5	B	5.3	A/B	24.72	C/D[2]	32.9	D[3]	23.1	C	32.4	D[3]

1) Level of Service
2) When level of service is near the borderline, both levels are shown.
3) Although this intersection operates at LOS D or above, individual moves operate at LOS E or F.
4) 1995 No-Build Analysis was conducted to evaluate the impact on the Beacon Street intersections from the Hammond Street Bridge reopening.

TABLE 5

LEVEL OF SERVICE ANALYSIS

UNSIGNALIZED

	1990 Existing				1995 Build				1995 No-Build [4]			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	RC[2]	LOS[1]	RC	LOS	RC	LOS	RC	LOS	RC	LOS	RC	LOS
#1 Commonwealth Avenue/Chestnut Hill Road												
EB LT from Comm Ave	845	A	744	A	843	A	744	A				
WB LT from Comm Ave	609	A	566	A	609	A	562	A				
NB moves from Chestnut	764	A	888	A	747	A	584	A				
SB moves from Reservoir	999	A	205	C/D[3]	276	C	204	C/D[3]				
#2 Beacon Street/St. Thomas More Drive												
EB LT from Beacon	306	B	266	C	64	E	149	D	108	D	161	D
WB LT from Beacon	609	A	708	A	594	A	618	A	594	A	616	A
NB moves from Gate House Road	74	E	11	E	16	E	12	E	30	E	17	E
SB RT from St. Thomas More	594	A	439	A	575	A	386	B	587	A	408	A/B[3]
SB LT/THRU from St. Thomas More	30	E	-52	F	-25	F	-38	F	-17	F	-23	F
#3 Beacon Street/Reservoir Avenue/Parking Garage Access												
EB LT from Beacon	442	B	335	B	391	B	310	B	379	B	326	B
NB from Reservoir	328	B	110	D	32	E	94	E	38	E	98	D/E[3]
SB LT from Parking	68	E	-70	F	5	E/F	-98	F	6	E/F[3]	-99	F
SB RT from Parking	572	A	331	B	509	A	331	B	509	A	330	B
#5 Commonwealth Avenue/College Road/Mt. Alvernia												
EB LT from Comm Ave	865	A	606	A	864	A	599	A				
WB LT from Comm Ave	467	A	593	A	459	A	590	A				
NB LT/TH from College	149	D	36	E	145	D	33	E				
NB RT from College	339	B	437	A	331	B	434	A				
SB LT/TH from Mt. Alvernia	84	E	58	E	81	E	56	E				
SB RT from Mt. Alvernia	854	A	613	A	852	A	606	A				

1) Level of Service
2) Reserve Capacity
3) When level of service is near the borderline, both levels are shown.
4) 1995 No-Build Analysis was conducted to evaluate the impact on the Beacon Street intersections from the Hammond Street Bridge reopening.

1995 No-Build Analysis

Due to the traffic pattern changes anticipated from the Hammond Bridge reopening, a 1995 No-Build analysis was conducted to evaluate the impact on the Beacon Street study intersections. The No-Build incorporates only the changes in traffic anticipated from the Hammond Bridge reopening and does not include any Boston College development. The results provide a relative measure of the impacts from the Boston College development under Build conditions to the background conditions (with the bridge open) that would exist in 1995 without any Boston College development.

- Signalized

  The Beacon Street/Hammond Street intersection (#4) will operate at LOS C during the AM peak and LOS D during the PM peak. Although the overall PM level of service is acceptable D, the westbound Beacon Street approach and the northbound Hammond Street approaches will individually operate at LOS E.

- Unsignalized

  At the Beacon Street/St. Thomas More intersection (#2), the northbound Gate House Road and southbound left and through moves from St. Thomas More Drive will continue to operate at LOS E and LOS F, respectively during both peak hours.

  At the Beacon Street/Reservoir Avenue/Parking Garage Access (#3) intersection, Reservoir Avenue will be adversely affected by the reopening of the Hammond Street Bridge. The northbound moves from Reservoir Avenue will operate at LOS E during both peak hours, and the southbound left turns from the parking garage will continue to experience delays and operate at LOS E/F in the AM peak and LOS F during the PM peak hour.

1995 Build Analysis

The Build analysis includes Boston College's Lower Campus development expected by 1995.

- Signalized

  As under No-Build conditions, the Commonwealth Avenue/Lake Street intersection, (#6) will operate at LOS C during the AM peak and LOS C, with the eastbound and northbound moves at LOS E, during the PM peak.

  The Beacon Street/Hammond Street/College Road (#4) intersection will operate at overall LOS C/D during the AM peak and LOS D during the PM peak, and the

westbound Beacon Street approach and northbound Hammond Street approach will continue to operate at LOS E, as under No-Build conditions.

- Unsignalized

  The Commonwealth Avenue/Chestnut Hill Road (#1) intersection will continue to operate adequately during the AM and PM peak hours.

  At Beacon Street/St. Thomas More Drive (#2), the northbound moves from Gate House Road and southbound left and through moves from St. Thomas More Drive will continue to operate at LOS E and F, respectively. In the morning, the eastbound left from Beacon Street would be at LOS E.

  As under No-Build conditions, the Beacon Street/Reservoir Avenue intersection (#3) will continue to have capacity deficiencies on the northbound Reservoir Avenue approach and the southbound left turn lane from the parking garage.

  At the Commonwealth Avenue/College Road/Mt. Alvernia intersection (#5), level of service will remain at their 1990 levels.

Summary

By 1995, the traffic impacts from the Boston College proposed development will add little traffic to the study area, and will not cause a significant degradation in any intersection level of service when compared to No-Build or Existing conditions. The reopening of the Hammond Street Bridge, however, will reintroduce some traffic problems to the area, including use of residential streets to travel between the Bridge and Beacon Street.

Traffic using the unsignalized intersection of Beacon Street/St. Thomas More Drive (#2) will continue to experience the same delays in evidence today. Signalization of this intersection should be considered by the City of Boston, independent of the Boston College Master Plan, to improve the traffic operation to LOS B in both peaks, and to create gaps in the traffic stream that would allow traffic from the minor unsignalized intersections on Beacon Street between Hammond Street and St. Thomas More Drive to access Beacon Street easier.

While the intersection at Beacon Street/Reservoir Avenue/Parking Garage (#3) will continue to have deficient moves in the future it is not recommended for signalization. First, if Beacon Street/St. Thomas More Drive is signalized, the operation will artificially create gaps in the traffic flow on Beacon Street, allowing easier access from the minor approaches at the unsignalized intersections between St. Thomas More Drive and Hammond Street. Also, Reservoir Avenue is a residential street which, when the bridge reopens, will carry traffic wanting to "short cut" to Beacon Street. The installation of a

traffic signal to improve traffic flow would encourage more traffic to use this residential bypass.

The conclusion drawn by this discussion is that, while motorists currently experience some delays in the study area, no significant traffic impact is expected from the proposed 1995 Boston College development.

APPENDIX A

Trip Generation Calculations

COMMUTER STUDENTS

The proposed 1995 Master Plan would provide on-campus housing for an additional 540 students, who are currently (1990) commuting to Boston College. Based on data collected in 1985, the following assumptions were made in regard to commuter student trip generation.

1) 9% of potential tripmakers do not travel to campus, due to illness, conflicts, etc.

2) 7% of students do not travel to campus due to scheduling.

3) Mode split: 68% auto, 32% other or auto passengers.

Therefore, the one-way Boston College generated trips attributable to commuting students, who will be housed on campus by 1995 are:

(2 one-way trips/person) x (100% - 9%) x (100% - 7%) x (68%) x (540) = 621 one-way daily auto trips

Based on the observed peak period arrival/departure distribution shown below, the peak hour trips were calculated:

DISTRIBUTION PERCENTAGE:

	Arrival	Departure
8-9 AM	14.2%	1.9%
5-6 PM	4.9%	8.2%

PEAK HOUR TRIPS:

	Arrival	Departure
8-9 AM	44	6
5-6 PM	16	25

PARKING GARAGE

Using information provided in "Parking for Institutions and Special Events", (Edward M. Whitlock, P.E., ENO Foundation for Transportation, Inc. 1982, Chapter 3) the number of additional vehicle trips to be generated by the parking garage were calculated.

PARKING ACCUMULATION

8:00 AM	67.5%
9:00 AM	86.0%
5:00 PM	59.5%
6:00 PM	52.0%

Or, on average, by 8:00 AM 67.5% of all campus parkers have already arrived and parked. During the peak traffic hour between 8 and 9 AM, an additional 18.5% of all daily parkers arrive. Between 5 and 6 PM, 7.5% of daily campus parkers will depart.

Based on the following directional distribution from the ITE Trip Generation Manual for University Land Use Code, the peak hour trips were calculated.

DIRECTIONAL DISTRIBUTION

	IN	OUT
AM Peak	88.2%	11.8%
PM Peak	33.3%	66.7%

PEAK HOUR TRIPS

	IN	OUT
AM Peak	86	11
PM Peak	29	59

Example calculation, AM peak hour: The accumulation of vehicles in the parking garage will increase by 18.5% of 400 vehicles, or 74 vehicles. With a net increase of 74 vehicles, 88.2% of the total vehicles using the garage will be entering and 11.8% will be exiting. Thus, where z = total number of vehicles using garage,

$$(0.882)(z) - (0.118)(z) = 74$$
$$z = 97$$

So, a total of 97 vehicles will use the garage, with 86 entering and 11 exiting.

APPENDIX D

Procedures During High Capacity Events

APPENDIX D

Procedures During High Capacity Events

Boston College Police Department
Alumni Stadium Events
Standard Operating Procedures

Parking & Traffic

The traffic pattern set up for any large event at the Boston College Alumni Stadium is a circular flow around the perimeter of the University. Traffic is kept on main roads (Beacon Street and Commonwealth Avenue) and roads that have a lower impact on neighborhood residents.

St. John's Seminary, Honeywell Bull, MDC Waterworks, MBTA Riverside Station, Hammond Pond Parkway and Newton Campus are satellite areas intended to bleed off excess parking from local streets when traffic conditions become congested.

This is accomplished by the following means: If necessary, Commonwealth Avenue is made one way eastbound and one way westbound on the Carriage Road, with the cooperation of the Newton Police. When this happens, the Boston Police divert traffic into St. John's Seminary.

Conversely, if need be, the Newton Police can also divert traffic along the Carriage Road to Center Street and onto the Law School Campus. In the same vein, we utilize Chestnut Hill Drive from the intersection with St. Thomas More Drive towards Commonwealth Avenue to siphon off excess vehicles as needed.

At St. John's we utilize two entrances for most of the vehicles. The Foster Street entrance which is approximately 100 yards from the main parking area, and the Lake Street entrance (30 feet from Commonwealth Avenue).

Vehicles are parked at this area under two conditions. Early arrivals (low traffic volume), and the second condition is under exigent circumstances, usually as a safety valve to bleed off

traffic from St. Thomas More Drive and Commonwealth Avenue. Pedestrian traffic leaving the parking area is channeled through the drive off of Commonwealth Avenue. This improves the safety of pedestrians and reduces any accompanying noise levels.

The entrance off of Foster Street is used by significantly fewer vehicles. Any vehicles entering are immediately in sight of the parking area. Pedestrian traffic is funneled out the Commonwealth Avenue exit.

Vehicles exiting the area are allowed out all three exits. Those leaving via Lake Street must turn right and are fed into Washington Street (a main thoroughfare). Vehicles exiting Foster Street travel approximately 1/2 mile to either Commonwealth Avenue or Washington Street.

This plan is put into effect for all large events occurring at Boston College; i.e. football, commencement.

BOSTON COLLEGE FOOTBALL INFORMATION

FOOTBALL 1990

To: Commanding Officer, Municipal Police Detail

From: Chief Watson, Boston College Police Department

Subject: Instructions for Pre-Game Briefing to be read to all Police Officers

In general: Police will make certain that parking restrictions are maintained so that residents are not blocked in or out of their homes and that the streets are passable at all times for emergency vehicles (fire, ambulance, police).

Police will address promptly any rowdy behavior that comes to their attention. All illegally parked vehicles will be either cited or towed.

Police will enforce the city's ordinances against public consumption of alcoholic beverages and the use of grills and open fires for cookouts on the streets (tailgating).

The commander will instruct his detail officers that there is parking available at Riverside MBTA, the Newton Campus, St. John's Seminary (Brighton, Lake St.), MDC Pumping Station, Honeywell-Bull Parking Lot on Needham St., Honeywell-Bull Parking Lot on Market Street. Shuttle busses will provide transportation as needed.

Boston College has provided maps for your detail officers. Please distribute.

SPECIAL ATTENTION ALL POLICE DETAILS

If any officer receives a complaint from a citizen that is not within his/her jurisdiction, immediately forward the complaint to BCPD headquarters (either via Bapern radio or telephone #552-4440). If the officer has no access to radio or telephone, request that the complainant call BCPD at 552-4440.

The Commanding Officer will be assigned a BC police radio to communicate directly with BCPD control if necessary. The Commanding Officer is requested to provide a report at the end of the detail to the BCPD chief. Please note any problems, unusual incidents, or complaints received by the detail officers.

NOTE: Police details begin three and one half hours prior to game time. The length of the detail is eight hours, unless otherwise requested by Chief Watson.

EXAMPLE:
Dispatch

BOSTON COLLEGE POLICE

INTER-DEPARTMENTAL MEMORANDUM

TO:_____ DATE:_____

FROM:_____ SUBJECT:_____

The BCPD telephone number (552-4440) has been issued to the public for all complaints regarding football games. Any and all calls are to be answered promptly and courteously and complete information taken. Forward the complaint to Lt. Neault and record the complaint and action on a card.

Please keep a hand written journal to include time, complaint and action taken. The Journal must be turned into Lt. Neault at the end of the detail.

cc. Chief Watson
Capt. Durrane
Lts. McGovern, Tess
Sgts.

OVERVIEW

Police details start three and one half hours prior to game time. The duration is for eight hours. The details may be extended by the Boston College Chief of Police due to exigent circumstances. Departments involved and size of the details are as follows:

Newton Police	50 Officers
Boston Police	15 Officers (2 Officers added)
MDC Police	12 Officers
Boston College Police	43 Officers
Uniformed Auxiliary Police	60 Officers
Subtotal	178 Officers
Stadium Security/Parking Attendants	50 Personnel
Grand Total	226 Personnel

MEDICAL RESPONSE TEAM
3 Ambulances (2 Life Support, 1 Paramedic)

FIRST AID ROOM
1 Doctor
2 Nurses
5 EMTs (stands)
6 Police EMTS

FIRE RESPONSE
Boston Fire Department: 1 Officer, 4 Firefighters

PARKING AVAILABILITY

Middle and Lower Campus	2,500
Shea Field	800
Lawn Parking	500
MBTA Riverside	700
MDC Water Works	200
St. John's Seminary	700
Newton Campus	500
Legal Street Parking (Newton, Allston/Brighton)	1,500
Honeywell Parking Lot-Needham St. off 128	
Honeywell Parking Lot-Brighton	1,000
Total	8,400

BOSTON COLLEGE POLICE DEPARTMENT

SILVIO O. CONTE FORUM EVENTS

STANDARD OPERATING PROCEDURE

HIGH CAPACITY EVENT

Games that will attract a large crowd or may cause other problems will require a HIGH CAPACITY EVENT detail. This will be decided by the Chief. The Boston College Police detail for these events will be: one Lieutenant, two Sergeants, eleven Patrolmen. Supervisor's input for these events is specifically requested. The detail will normally report for duty (on post) one and one half hour before the scheduled start of the game. It will remain on duty until the facility is cleared at the end of the game and traffic has returned to normal. The detail will remain until the shift supervisor is satisfied that they are no longer needed on campus.

Each game will have three municipal details. These details will commence and end at the same time as the BC detail. The shift supervisor, acting in the Chief's stead, may require them to run longer if traffic conditions require it.

The detail supervisor will file an after-action report for the Chief after each event, summarizing the event and noting specific information and suggestions that would improve the efficiency and safety of future events.

The Boston Police detail will consist of one sergeant and four patrolmen. The BC shift supervisor or detail supervisor will meet with the Boston sergeant prior to the game and brief him on their duties. Their primary duties will be traffic control. All game traffic should be directed into the parking garage.

The Newton Police detail will consist of one Lieutenant, two Sergeants and ten Patrolmen. Their duties are as outlined. All BC/game traffic should be directed down Beacon St. to parking inside the garage. The Newton Lieutenant and Sergeants will actively supervise the detail.

The MDC detail will consist of one Sergeant and four Patrolmen. MDC Police will allow parking for the game on St. Thomas More Drive and Chestnut Hill Drive.

BASKETBALL/HOCKEY DETAIL DUTIES

The shift supervisor will check the municipal details to insure they are at their assigned posts. It is the responsibility of the shift supervisor at a hockey or basketball game to obtain the names of the municipal police (Newton, Boston & MDC) and list the names in the Administrative Journal. The shift supervisor will also be responsible for responding to any and all traffic complaints from the neighborhood. Immediate corrective action must be taken if the complaint is legitimate. Shift officers should be assigned to assist the detail in directing parking in the garage as necessary. Larger events may require additional detail officers for traffic control. Intensive patrols of the garage will be maintained during all games.

Prior to the beginning of the game, the detail Sergeant will assign his/her officers to traffic control locations. Officers will also be assigned inside to protect the ticket takers and the unmanned entrances.

Once the crowd is inside, the detail Sergeant will reassign officers as needed for crowd control. The details will remain on duty until the game has ended, the crowd is cleared and the building is ready to be secured. The detail Sergeant will check with the shift supervisor before releasing the detail from the area. The detail officers will be assigned to assist with traffic control or clear up any other situations as necessary. The final responsibility for relieving the detail will be the shift supervisor's.

The Shift supervisors will make a traffic survey of the surrounding streets during all hockey and basketball games. This survey should include a specific count of vehicles parked on the following streets; Acacia, Lee, Reservoir and Lawrence in Newton, and Lake St., Undine Road and other surrounding roads in Brighton. Compile the information in the after -action report, forward it to the Chief for the following day. If there are any other significant problems surrounding these events, include that information also. You may use the same case number and journal entry used for recording the municipal detail.

BOSTON COLLEGE POLICE DEPARTMENT

SILVIO O. CONTE FORUM EVENT

STANDARD OPERATING PROCEDURE

TO: Commanding Officer - Municipal Police Detail

FROM: Chief Watson, Boston College Police Department

SUBJECT: Conte Forum Event Detail

The police detail will begin one and one half hour before game time. The length of the detail will be four hours, unless otherwise extended by Boston College Police.

Please read the following instructions at roll call:

1) Officers will make certain that traffic is controlled in their area while making maximum use of parking so that emergency vehicles (police, fire and ambulance) can move freely on all streets at all times.

2) Officers will enforce regulations pertinent to public drinking. Officers will go promptly to their assigned posts after briefing and remain on their posts until dismissed.

SILVIO O. CONTE FORUM EVENTS

PARKING AVAILABILITY

NEWTON CAMPUS	500	
WATERWORKS PUMPING STATION	200	FOR SPECIFIED EVENTS
TEMPLE MISHKA TEFILA	700	CONDITIONS PERMITTING
SHEA FIELD	800	
MAIN CAMPUS AND GARAGE	2500	
LEGAL STREET PARKING	500	NEWTON & BRIGHTON
TOTAL	5200	

MAPS AND HANDOUTS FOR PARKING LOCATIONS WILL BE AVAILABLE.

APPENDIX E

BOSTON COLLEGE
BUILDING PROFILE DATA

APPENDIX E

BOSTON COLLEGE / BUILDING PROFILE DATA

Boston:

Building Name: **Silvio Conte Forum**
Building Use (See Legend): SP
Gross Square Footage: 265,000 GSF
Building Stories: 6 (Plus mech. ph.)
Building Height: 142.8'
*Parking: 1,002 spaces
Loading Area: 2 trucks
Linkage: N/A

Building Name: **Alumni Stadium**
Building Use (See Legend): SP
Gross Square Footage: 187,000 GSF
Building Stories: 2
Building Height: 99'
Parking: 1,002 spaces
Loading Area: 2 trucks
Linkage: N/A

Building Name: **Modular Housing**
Building Use (See Legend): SR
Gross Square Footage: 118,784 GSF
Building Stories: 2
Building Height: 32'
Parking: 127 spaces
Loading Area: N/A
Linkage: N/A

Building Name: **Robsham Theater Arts Center**
Building Use (See Legend): A/C - SS
Gross Square Footage: 28,170 GSF
Building Stories: 2 (Plus mechanical penthouse)
Building Height: 64'
Parking: 47 spaces
Loading Area: 1 truck
Linkage: N/A

Building Name: **St. Thomas More Hall**
Building Use (See Legend): A
Gross Square Footage: 64,838 GSF
Building Stories: 2 (Plus basement)
Building Height: 32.9'
Parking: N/A
Loading Area: 1 truck
Linkage: N/A

Building Name: **Walsh Hall**
Building Use (See Legend): SR
Gross Square Footage: 194,445 GSF
Building Stories: 8
Building Height: 93.75'
Parking: 276 spaces
Loading Area: 1 truck
Linkage: N/A

Building Name: **Edmonds Hall**
Building Use (See Legend): SR
Gross Square Footage: 240,357 GSF
Building Stories: 9
Building Height: 81'
Parking: 124 spaces
Loading Area: N/A
Linkage: N/A

Building Name: **Parking Garage**
Building Use(See Legend): P
Gross Square Footage: 176,211 GSF
Building Stories: 4
Building Height: 32.5'
Parking: 827 spaces
Loading Area: N/A
Linkage: N/A

Building Name: **William J. Flynn Recreation Complex**
Building Use (See Legend): SP
Gross Square Footage: 108,550 GSF
Building Stories: 2
Building Height: 45'
Parking: 179 spaces
Loading Area: (4) 1 truck each.
Linkage: N/A

Building Name: **Greycliff**
Building Use (See Legend): SR
Gross Square Footage: 12,424 GSF
Building Stories: 2 (Plus basement)
Building Height: 36'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **St. Clement's Hall (Leased)**
Building Use (See Legend): A
Gross Square Footage: 28,000 GSF
Building Stories: 5
Building Height: 55'
Parking: 80
Loading Area: 1
Linkage: N/A

Building Name: **235 North Beacon St (Leased)**
Building Use (See Legend): STOR
Gross Square Footage: 33,000 GSF
Building Stories: 1
Building Height: 22'
Parking: 4
Loading Area: 1
Linkage: N/A

Middle Campus - Newton:

Building Name: **Guard House (Service Building)**
Building Use (See Legend): MISC
Gross Square Footage: 48 GSF
Building Stories: 1
Building Height: 10'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Campion Hall**
Building Use (See Legend): A/C
Gross Square Footage: 110,000 GSF
Building Stories: 4 (Plus basement)
Building Height: 42.9'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **McGuinn Hall**
Building Use (See Legend): A/C
Gross Square Footage: 154,550 GSF
Building Stories: 6 (Plus basement and mechanical penthouse)
Building Height: 70'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Carney Hall**
Building Use (See Legend): A/C
Gross Square Footage: 103,414 GSF
Building Stories: 4 (Plus basement and mechanical penthouse)
Building Height: 48'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **McElroy Commons**
Building Use (See Legend): SS
Gross Square Footage: 125,234 GSF
Building Stories: 3 (Plus basement and mechanical penthouse)
Building Height: 42.7'
Parking: N/A
Loading Area: 4 trucks
Linkage: N/A

Building Name: **Bus Stop (McElroy / Carney)**
Building Use (See Legend): MISC
Gross Square Footage: 72 GSF
Building Stories: 1
Building Height: 12'
Parking: Two street spaces for buses
Loading Area: N/A
Linkage: N/A

Building Name: **McElroy Switch House**
Building Use (See Legend): MISC
Gross Square Footage: 1,100 GSF
Building Stories: 1
Building Height: 12.7'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Service Building**
Building Use (See Legend): A/S
Gross Square Footage: 33,880 GSF
Building Stories: 3 (Plus basement and mechanical penthouse)
Building Height: 41.25'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Higgins Hall Cooling Tower**
Building Use (See Legend): MISC
Gross Square Footage: 900 GSF
Building Stories: 1
Building Height: 6.8'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Higgins Hall Green House**
Building Use (See Legend): MISC
Gross Square Footage: 1,350 GSF
Building Stories: 1
Building Height: 14.5'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Cushing Hall**
Building Use (See Legend): A/C
Gross Square Footage: 57,883 GSF
Building Stories: 4 (Plus basement)
Building Height: 42.6'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Fulton Hall**
Building Use (See Legend): A/C
Gross Square Footage: 80,930 GSF
Building Stories: 3 (Plus basement)
Building Height: 46.5'
Parking: N/A
Loading Area: Step van dock
Linkage: N/A

Building Name: **Higgins Hall**
Building Use (See Legend): A/C
Gross Square Footage: 154,195 GSF
Building Stories: 5 (Plus basement and mech. ph.)
Building Height: 52.34'
Parking: N/A
Loading Area: 1 truck width
Linkage: N/A

Building Name: **Devlin Hall**
Building Use (See Legend): A/C
Gross Square Footage: 97,101 GSF
Building Stories: 4 (Plus basement and mechanical penthouse)
Building Height: 56'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Lyons Hall**
Building Use (See Legend): A/C
Gross Square Footage: 68,896 GSF
Building Stories: 4 (Plus sub-basement, basement, and mechanical penthouse)
Building Height: 56.2'
Parking: N/A
Loading Area: 2 trucks
Linkage: N/A

Building Name: **Gasson Hall**
Building Use (See Legend): A/C
Gross Square Footage: 82,069 GSF
Building Stories: 3 (Plus basement and mechanical penthouse)
Building Height: 48.9'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Thomas P. O'Neill, Jr. Library**
Building Use (See Legend): LIB
Gross Square Footage: 195,931 GSF
Building Stories: 3 (Plus sub-basement, basement, and mechanical penthouse)
Building Height: 58.3'
Parking: 20 spaces at St. Mary's Hall (City of Newton); 7 spaces per Boston Code
Loading Area: (2) 1 truck each
Linkage: N/A

Building Name: **Bapst Library**
Building Use (See Legend): LIB
Gross Square Footage: 73,686 GSF
Building Stories: 3 (Plus sub-basement and basement)
Building Height: 60.83'
Parking: N/A
Loading Area: 1 truck width
Linkage: N/A

Building Name: **Main Gate Guard House**
Building Use (See Legend): MISC
Gross Square Footage: 150 GSF
Building Stories: 1
Building Height: 15'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Ignacio Hall (A&B)**
Building Use (See Legend): SR
Gross Square Footage: 122,428 GSF
Building Stories: 5 (Plus basement)
Building Height: 52'
Parking: 82 spaces (Lot EE)
Loading Area: N/A
Linkage: N/A

Building Name: **Rubenstein Hall (C&D)**
Building Use (See Legend): SR
Gross Square Footage: 135,498 GSF
Building Stories: 5 (Plus basement)
Building Height: 60.67'
Parking: 82 spaces (Lot EE)
Loading Area: N/A
Linkage: N/A

Building Name: **Southwell Hall**
Building Use (See Legend): A
Gross Square Footage: 5,730 GSF
Building Stories: 3 (Plus basement)
Building Height: 36'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **80 Commonwealth Ave**
Building Use (See Legend): SR
Gross Square Footage: 70,750 GSF
Building Stories: 6
Building Height: 54.4'
Parking: 79 spaces (Lower Campus)
Loading Area: N/A
Linkage: N/A

Building Name: **Voute' Hall**
Building Use (See Legend): SR
Gross Square Footage: 89,070 GSF
Building Stories: 6
Building Height: 64.6'
Parking: 79 spaces (Lower Campus)
Loading Area: N/A
Linkage: N/A

Building Name: **Bus Stop (Gasson/Lyons)**
Building Use (See Legend): MISC
Gross Square Footage: 72 GSF
Building Stories: 1
Building Height: 10'
Parking: two street spaces for buses
Loading Area: N/A
Linkage: N/A

Building Name: **Guard House (McGuinn/Campion)**
Building Use (See Legend): MISC
Gross Square Footage: 48 GSF
Building Stories: 1
Building Height: 10'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Guard House (McElroy/Carney)**
Building Use: MISC
Gross Square Footage: 48 GSF
Building Stories: 1
Building Height: 10'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **66 Commonwealth Ave Dorm**
Building Use (See Legend): SR
Gross Square Footage: 58,271 GSF
Building Stories: 6 (Plus basement)
Building Height: 66'
Parking: 29 spaces (Lot FF)
Loading Area: N/A
Linkage: N/A

Building Name: **St. Mary's Hall**
Building Use (See Legend): S.J. residence and chapel
Gross Square Footage: 90,770 GSF
Building Stories: 4 (Plus basement)
Building Height: 60'
Parking: 38 spaces (Lot D)
Loading Area: N/A
Linkage: N/A
*BC owns the land; the Jesuits own the building.

Building Name: **36 College Rd**
Building Use (See Legend): A
Gross Square Footage: 3,554 GSF
Building Stories: 2 (Plus basement)
Building Height: 20'
Parking: 2 spaces (Lot I)
Loading Area: N/A
Linkage: N/A

Building Name: **72 College Rd**
Building Use (See Legend): A
Gross Square Footage: 3,496 GSF
Building Stories: 3 (Plus basement)
Building Height: 31.50'
Parking: 3 spaces (Lot H)
Loading Area: N/A
Linkage: N/A

Building Name: **Brock House**
Building Use (See Legend): A
Gross Square Footage: 4,105 GSF
Building Stories: 3 (Plus basement)
Building Height: 32.5'
Parking: 3 spaces (Lot H)
Loading Area: N/A
Linkage: N/A

Building Name: **Bourneuf House**
Building Use (See Legend): A
Gross Square Footage: 5,490 GSF
Building Stories: 3 (Plus basement)
Building Height: 29'
Parking: 4 spaces (Lot H)
Loading Area: N/A
Linkage: N/A

Building Name: **Donaldson House**
Building Use (See Legend): A
Gross Square Footage: 6,573 GSF
Building Stories: 2 (Plus basement)
Building Height: 21'
Parking: 4 spaces (Lot H)
Loading Area: N/A
Linkage: N/A

Building Name: **Rahner House**
Building Use (See Legend): A
Gross Square Footage: 4,189 GSF
Building Stories: 2 (Plus basement)
Building Height: 24.33'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Faber House**
Building Use (See Legend): A
Gross Square Footage: 5,384 GSF
Building Stories: 3 (Plus basement)
Building Height: 31.5'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Hopkins House**
Building Use (See Legend): A
Gross Square Footage: 4,193 GSF
Building Stories: 3 (Plus basement)
Building Height: 32'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Lawrence House**
Building Use (See Legend): A
Gross Square Footage: 4,812 GSF
Building Stories: 3 (Plus basement)
Building Height: 23.7'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Botolph House**
Building Use (See Legend): A
Gross Square Footage: 7,098 GSF
Building Stories: 3 (Plus basement)
Building Height: 32'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Bea House**
Building Use (See Legend): SJ / R
Gross Square Footage: 10,385 GSF
Building Stories: 3 (Plus basement)
Building Height: 35.5'
Parking: N/A
Loading Area: N/A
Linkage: N/A
Linkage: N/A

Building Name: **25 Lawrence Ave**
Building Use (See Legend): SR
Gross Square Footage: 34,501 GSF
Building Stories: NATP
Building Height: NATP
Parking: NATP
Loading Area: NATP
Linkage: N/A

Hammond Street Triangle - Newton:

Building Name: **Daly House**
Building Use (See Legend): SJ / R
Gross Square Footage: 5,108 GSF
Building Stories: 2.5 (Plus basement)
Building Height: 31'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Hovey House**
Building Use (See Legend): A
Gross Square Footage: 9,291 GSF
Building Stories: 3 (Plus basement)
Building Height: 34.4'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **31 Lawrence Ave**
Building Use (See Legend): A
Gross Square Footage: 4,929 GSF
Building Stories: 3 (Plus basement)
Building Height: 32.5'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Canisus House**
Building Use (See Legend): SJ / R
Gross Square Footage: 3,595 GSF
Building Stories: 2 (Plus basement)
Building Height: 21.3'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **55 Lee Rd**
Building Use (See Legend): SJ / R
Gross Square Footage: 6,423 GSF
Building Stories: 3 (Plus basement)
Building Height: 34'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Murray House**
Building Use (See Legend): SS
Gross Square Footage: 7,255 GSF
Building Stories: 3 (Plus basement)
Building Height: 35.1'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Murray Carriage House**
Building Use (See Legend): STOR
Gross Square Footage: 1,686 GSF
Building Stories: 1
Building Height: 14'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Connolly Faculty Center**
Building Use (See Legend): A
Gross Square Footage: 14,163 GSF
Building Stories: 2 (Plus basement)
Building Height: 35.6'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Connolly Carriage House**
Building Use (See Legend): STOR
Gross Square Footage: 5,183 GSF
Building Stories: 1
Building Height: 21.8'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Haley House**
Building Use (See Legend): A
Gross Square Footage: 8743 GSF
Building Stories: 3 (Plus basement)
Building Height: 34.3'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Haley Carriage House**
Building Use (See Legend): DC
Gross Square Footage: 6,532 GSF
Building Stories: 2 (Plus basement)
Building Height: 22.5'
Parking: 4 spaces (see Lot II)
Loading Area: N/A
Linkage: N/A

Upper Campus - Newton:

Building Name: **Roncalli Hall**
Building Use (See Legend): SR
Gross Square Footage: 33,240 GSF
Building Stories: 3 (Plus basement)
Building Height: 32.9'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Welch Hall**
Building Use (See Legend): SR
Gross Square Footage: 33,240 GSF
Building Stories: 3 (Plus basement)
Building Height: 32.75'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Williams Hall**
Building Use (See Legend): SR
Gross Square Footage: 33,240 GSF
Building Stories: 3 (Plus basement)
Building Height: 31.2'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Fitzpatrick Hall**
Building Use (See Legend): SR
Gross Square Footage: 31,021 GSF
Building Stories: 3 (Plus basement)
Building Height: 30.2'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Kostka Hall**
Building Use (See Legend): SR
Gross Square Footage: 30,335 GSF
Building Stories: 3 (Plus basement)
Building Height: 26.4'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Gonzaga Hall**
Building Use (See Legend): SR
Gross Square Footage: 33,088 GSF
Building Stories: 3 (Plus basement)
Building Height: 26.4'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **O'Connell Hall**
Building Use (See Legend): SS
Gross Square Footage: 23,346 GSF
Building Stories: 3 (Plus basement)
Building Height: 36'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Shaw House**
Building Use (See Legend): SR
Gross Square Footage: 9,773 GSF
Building Stories: 2 (Plus basement)
Building Height: 23.4'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Medeiros Town Houses**
Building Use (See Legend): SR
Gross Square Footage: 12,922 GSF
Building Stories: 3 (Plus basement)
Building Height: 32.4'
Parking: 22 spaces
Loading Area: N/A
Linkage: N/A

Building Name: **Claver Hall**
Building Use (See Legend): SR
Gross Square Footage: 11,808 GSF
Building Stories: 3 (Plus basement)
Building Height: 29.15'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Loyola Hall**
Building Use (See Legend): SR
Gross Square Footage: 17,687 GSF
Building Stories: 3 (Plus basement)
Building Height: 26.15'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Xavier Hall**
Building Use (See Legend): SR
Gross Square Footage: 11,070 GSF
Building Stories: 3 (Plus basement)
Building Height: 27.15'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Fenwick Hall**
Building Use (See Legend): SR
Gross Square Footage: 32,197 GSF
Building Stories: 3 (Plus basement)
Building Height: 27.15'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Cheverus Hall**
Building Use (See Legend): SR
Gross Square Footage: 31,242 GSF
Building Stories: 3 (Plus basement)
Building Height: 27.67'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Newton Campus - Newton:

Building Name: **Mill Street Cottage**
Building Use (See Legend): STR
Gross Square Footage: 5,430 GSF
Building Stories: 2 (Plus basement)
Building Height: 21.25'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Keyes South / North**
Building Use (See Legend): SR
Gross Square Footage: 68,153 GSF
Building Stories: 4 (Plus basement)
Building Height: 42'
Parking: 25 spaces (Newton Campus - Lot I)
Loading Area: N/A
Linkage: N/A

Building Name: **Quonset Hut Gym**
Building Use (See Legend): SP
Gross Square Footage: 9,750 GSF
Building Stories: 1
Building Height: 23'
Parking: N/A
Loading Area: N/A
]Linkage: N/A

Building Name: **Kenny-Cottle Library**
Building Use (See Legend): LIB
Gross Square Footage: 28,262 GSF
Building Stories: 2.5 (Plus basement)
Building Height: 31.7'
Parking: N/A
Loading Area: (See Stuart Hall)
Linkage: N/A

Building Name: **James W. Smith Wing**
Building Use (See Legend): A/C
Gross Square Footage: 27,660 GSF
Building Stories: 2 (Plus basement)
Building Height: 28.6'
Parking: N/A
Loading Area: (See Stuart Hall)
Linkage: N/A

Building Name: **Stuart House**
Building Use (See Legend): A/C
Gross Square Footage: 77,394 GSF
Building Stories: 3 (Plus basement)
Building Height: 43.9'
Parking: N/A
Loading Area: 1 truck
Linkage: N/A

Building Name: **Barry Fine Arts Pavillion**
Building Use (See Legend): A/C
Gross Square Footage: 40,005 GSF
Building Stories: 2 (Plus basement)
Building Height: 25.4'
Parking: N/A
Loading Area: (See Stuart Hall)
Linkage: N/A

Building Name: **Bus Stop (885 Centre St. / Entry)**
Building Use (See Legend): MISC
Gross Square Footage: 72 GSF
Building Stories: 1
Building Height: 10'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Barat House**
Building Use (See Legend): A - SJ/R
Gross Square Footage: 17,153 GSF
Building Stories: 3 (Plus basement)
Building Height: 31.8'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Mary's House**
Building Use (See Legend): A/C
Gross Square Footage: 3,229 GSF
Building Stories: 2 (Plus basement)
Building Height: 20.5'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Trinity Chapel**
Building Use (See Legend): Chapel
Gross Square Footage: 17,552 GSF
Building Stories: 1 (Plus basement)
Building Height: 36.5'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Cottage and Garage**
Building Use (See Legend): STR / STOR
Gross Square Footage: 2,795 GSF
Building Stories: 1 (Plus basement)
Building Height: 21'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Alumni House**
Building Use (See Legend): A
Gross Square Footage: 16,149 GSF
Building Stories: 3 (Plus basement)
Building Height: 36.5'
Parking: 49 spaces
Loading Area: N/A
Linkage: N/A

Building Name: **Putnam House Garage**
Building Use (See Legend): STOR
Gross Square Footage: 1,296 GSF
Building Stories: 2 (Plus basement)
Building Height: 24'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Hardey House**
Building Use (See Legend): SR
Gross Square Footage: 38,505 GSF
Building Stories: 2 (Plus basement)
Building Height: 31.5'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Cushing House**
Building Use (See Legend): SR
Gross Square Footage: 26,042 GSF
Building Stories: 2 (Plus basement)
Building Height: 33.5'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Duchesne West**
Building Use (See Legend): SR
Gross Square Footage: 28,380 GSF
Building Stories: 2 (Plus basement)
Building Height: 31.6'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Duchesne East**
Building Use (See Legend): SR
Gross Square Footage: 24,644 GSF
Building Stories: 2 (Plus basement)
Building Height: 31.6'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Building Name: **Bus Stop (Alumni / Duchesne)**
Building Use (See Legend): MISC
Gross Square Footage: 72 GSF
Building Stories: 2 (Plus basement)
Building Height: 10'
Parking: N/A
Loading Area: N/A
Linkage: N/A

Other Properties:

Building Name: **Space Data Center**, 5 Alfred Circle, Bedford, MA
Building Use (See Legend): A
Gross Square Footage: 3,600 GSF
Building Stories: 1
Building Height: 18'
Parking: N/A
Loading Area: 1
Linkage: N/A

Building Name: **McClelland Hall** (Leased from Lasell College)
Building Use (See Legend): SR
Gross Square Footage: 14,330 GSF
Building Stories: NATP
Building Height: NATP
Parking: 80
Loading Area: N/A
Linkage: N/A

Building Name: **Converse Hall** (Leased From Lasell College)
Building Use: (See Legend): SR
Gross Square Footage: 5,823 GSF
Building Stories: NATP
Building Height: NATP
Parking: NATP
Loading Area: N/A
Lingage: N/A

Building Name: **Ordway Hall** (Leased from Lasell College
Building Use (See Legend); SR
Gross Square Footage: 4,752 GSF
Building Stories: NATP
Bu\ilding Height: NATP
Parking: NATP
Loading Area:
Linkage: N/A

Building Name: **Chandler Hall** (Leased from Lasell)
Building Use (See Legend): SR
Gross Square Footage: 2,853 GSF
Building Stories: NATP
Building Height: NATP
Parking: NATP
Loading Area: NATP
Linkage: N/A

Building Name: **Weston Observatory**
Building Use (See Legend): A/C
Gross Square Footage: 26,781 GSF
Building Stories: 2
Building Height: 27'
Parking: N/A
Loading Area: 1
Linkage: N/A

*Based on Article 51 (Section 15.2 b., Existing Property and Uses part V) of the Boston Redevelopment Authority's Allston-Brighton Neighborhood District report which states: "a description of off-street parking and loading areas and facilities including a statement of the approximate number of parking spaces in each area or facility."

BOSTON COLLEGE BUILDING PROFILE DATA
Legend of Abbreviations

A - Administrative

A/S - Administrative and Classrooms

A/S - Administrative and Storage

CHAPEL - Church and Offices

DC - Day Care and Offices

LIB - Library

MISC - Miscellaneous Structures (Bus Stops, Guard Houses, etc.)

N/A - Non-Applicable

NATP - Not Available at Time of Printing

P - Parking

SJ / R - Society of Jesuit Residence Facilities

SP - Sports Facilities and Administrative

SR - Student Residence Facilities

SS - Student Services Facilities

STOR - Storage Facilities

BOSTON COLLEGE PARKING SURVEY
EXISTING PARKING LOTS AND STRUCTURES

OCTOBER 25, 1991

I) MIDDLE CAMPUS (Chestnut Hill)

LOT	LOCATION	CAMPUS	1991 SPACES
B	66 Commonwealth Avenue (DORM)	MIDDLE	16
C	Ignacio/Rubenstein (A/B & C/D)	MIDDLE	22
D	St. Mary's Hall (S.J.)	MIDDLE	38
E	Gasson Hall/Linden Lane	MIDDLE	62
F	Bapst Library	MIDDLE	10
G	Botolph House/Hopkins House	COLLEGE ROAD	13
H	72 thru 102 College Road	COLLEGE ROAD	22
I	36 College Road	COLLEGE ROAD	2
J	Williams Hall	UPPER	4
K	O'Connell Hall	UPPER	11
L	McElroy Commons/Campus Green	MIDDLE	101
M	McElroy Commons/Carney Drive	MIDDLE	23
N	Lyons Hall (Rear)	MIDDLE	6
O	Fulton Hall (Front)	MIDDLE	6
P	Gasson Hall (Rear)	MIDDLE	6
Q	O'Neill Library	MIDDLE	10
R	Higgins Hall/Cushing Road	MIDDLE	45
S	McGuinn/Fulton/Carney Lot	MIDDLE	49
T	Service Building (Garage)	MIDDLE	7
U	Service/Cushing/Higgins Lot	MIDDLE	66
V	Service Building (East-Boiler Rm)	MIDDLE	17
II	Hammond Street (Triangle)	HAMMOND ST.	41
TOTAL AVAILABLE PARKING - MIDDLE CAMPUS		-------	**577**

II) LOWER CAMPUS (Boston)

A	St. Thomas More (Front/Rear)	LOWER	103
V	Service Building (East-Boiler Rm)	MIDDLE	0
W	Alumni Stadium/Conte/Science Road	LOWER	40
X	Science Building (East)	LOWER	27
Y	Alumni Stadium/Garage	LOWER	833
AA	RecPlex/Alumni Stadium Lot	LOWER	236
BB	Edmonds Hall Lot	LOWER	116
CC	Tennis Court/Conte Forum	LOWER	145
DD	Theatre Lot (Commuter Lot)	LOWER	361
EE	Lower Campus Road	LOWER	184
FF	Modular Dormitory/Theatre Lot	LOWER	217
GG	St. Ignatius Lot	LOWER	19
	Subtotal - Lower Campus ----------		2851

III) ADDITIONAL PARKING (Boston)

a)	Commander Shea Field	LOWER	700
b)	St. Clement's Hall (197 Foster St.)	OFF-CAMPUS	87
c)	Warehouse (235 N. Beacon St.)	OFF-CAMPUS	4
D)	1380 Sosldiers Field Road (Boston)	OOF-CAMPUS	70

TOTAL AVAILABLE PARKING - CHESTNUT HILL CAMPUS ----- 3719

IV) NEWTON CAMPUS (CENTRE STREET)

LOT	LOCATION	CAMPUS	1991 SPACES
A	Duchesne Hall	NEWTON	49
B	Cushing/Hardey	NEWTON	23
C	Trinity Chapel (West)	NEWTON	18
D	Stuart/Barat Loop	NEWWTON	14
E	St. Mary's/Trinity Lot	NEWTON	9
F	Stuart (Faculty) Lot	NEWTON	109
G	Stuart (Student) Lot	NEWTON	61
H	Keyes Dormitory (West)	NEWTON	33
I	Keyes Dormitory (North)	NEWTON	126
J	Quonset Hut Gym Lot	NEWTON	69
K	Cottage/Garage Road	NEWTON	45
L	Alumni Road	NEWTON	21
	SUB-TOTAL NEWTON CAMPUS PARKING.	----------	577
	TOTAL AVAILABLE PARKING FOR BOSTON COLLEGE STUDENTS & STAFF	----------	4296